

حمل الآن

مجانا وحصريا

المراجعة رقم (1)

الترم الثاني



Unit 8

Q1 Choose the correct answer :-

- 1) $\frac{4}{7} \div \dots = 1\frac{1}{2}$
 a) $\frac{8}{21}$ b) $\frac{21}{8}$ c) $\frac{6}{7}$ d) $\frac{7}{6}$
- 2) $\dots \div \frac{3}{8} = \frac{5}{6}$
 a) $\frac{18}{40}$ b) $\frac{15}{16}$ c) $\frac{1}{2}$ d) $\frac{5}{16}$
- 3) $\dots \times \frac{2}{5} = \frac{4}{14}$
 a) $\frac{2}{3}$ b) $\frac{5}{7}$ c) $\frac{3}{2}$ d) 3
- 4) $\dots \times 1\frac{1}{2} = 1$
 a) $\frac{2}{3}$ b) $\frac{1}{3}$ c) $\frac{3}{2}$ d) 3
- 5) $\frac{3}{5} \times \dots = 1$
 a) $\frac{8}{5}$ b) $\frac{3}{5}$ c) $1\frac{2}{3}$ d) 1
- 6) Half of 22 =
 a) 11 b) 22 c) 44 d) 2
- 7) How many $\frac{1}{6}$ s are there in $\frac{1}{2}$ apple ?
 a) 1 b) 12 c) 3 d) $\frac{1}{3}$
- 8) How many $\frac{3}{4}$ s are there in 6 apple ?
 a) 8 b) $\frac{18}{4}$ c) 7 d) $4\frac{1}{2}$
- 9) $87.29 \div 0.29 = 872.9 \div \dots$
 a) 2.9 b) 29 c) 290 d) 0.29
- 10) $327 \div 24 = 3.27 \div \dots$
 a) 2.4 b) 0.24 c) 24 d) 2004
- 11) If $123 \times 45 = 5535$, then $1.23 \times 4.5 = \dots$
 a) 55.35 b) 553.5 c) 5.535 d) 5535
- 12) If $127.92 \div 4.1 = 31.2$, then $12.792 \div 4.1 = \dots$
 a) 0.312 b) 3.12 c) 31.2 d) 312

13) $48 \times 36 = 1728$ then $17.28 \div 3.6 = \dots\dots\dots$

- a) 48 b) 480 c) 0.48 d) 4.8

14) $0.33 \div 0.011 = \dots\dots\dots \div 11$

- a) 33 b) 0.33 c) 330 d) 3300

15) Yara uses $\frac{6}{8}$ cup of flour to make 2 cupcakes , how much flour is used to make 1 cupcake ?

- a) $\frac{12}{8}$ b) $\frac{3}{8}$ c) $\frac{2}{8}$ d) $\frac{1}{8}$

16) $\frac{2}{3} \div \frac{1}{3} \dots\dots\dots \frac{1}{2}$

- a) < b) > c) =

17) Any number multiplied by its reciprocal equals

- a) same number b) 0 c) 1 d) double number

Q2 Complete the following :-

1) The reciprocal of $3\frac{3}{4}$ is

2) $\frac{4}{3} \div \frac{2}{9} = \dots\dots\dots$ (simplest form)

3) $5 \div \frac{1}{2} = \dots\dots\dots$ (simplest form)

4) $\frac{3}{4} \div 3 = \dots\dots\dots$ (simplest form)

5) $\frac{3}{5} \div \frac{3}{5} = \dots\dots\dots$ (simplest form)

6) $\frac{2}{7} \div \frac{2}{4} = \dots\dots\dots$ (simplest form)

7) $\dots\dots\dots \times 4 = 1$

8) $0.65 \times 0.2 = \dots\dots\dots$

9) $0.676 \times 0.1 = \dots\dots\dots$

10) $2.4 \times 3.6 = \dots\dots\dots$

11) $54.45 \div 0.9 = \dots\dots\dots$

12) $4.8 \div 0.16 = \dots\dots\dots$

13) Fifth of 15 =



- 14) $\frac{2}{3}$ of 27 =
- 15) The number of $\frac{2}{5}$ in 2 is
- 16) $\frac{3}{4} \div m = \frac{3}{8}$, then m =
- 17) $\frac{3}{4} \times m = \frac{3}{8}$, then m =
- 18) $5 \div \frac{2}{3} = 5 \times$

Q3 Answer the following :-

- 1) If you need to buy 1.5 kilograms of apples at a cost of 40.50 pounds per kilogram , how much money would you pay ?
- 2) Maria covered $\frac{2}{3}$ kilometers in 5 min. what is the distance covered in one minute ?
- 3) If the price of one meter of cloth 9.8 , what is the cost of 1.5 meters of cloth ?
- 4) A runner covered $\frac{4}{5}$ kilometer in 2 Laps. How many kilometers did he run in one lap ?
- 5) Soha divided 127.5 L.E. among her three sons. Find the share of each one.

Unit 9

Q1 Choose the correct answer :-

- 1) The ratio between 6:14 in the simplest form is 3:.....
a) 2 b) 3 c) 11 d) 7
- 2) The ratio between two side lengths of square:.....
a) 1:4 b) 2:4 c) 1:1 d) 1:2
- 3) To find the simplest form of the ratio 6:12, we divide the two terms by
a) 2 b) 3 c) 6 d) 1
- 4) If the ratio between apples to oranges is 4 : 7, then ratio between oranges to apples is
a) 11:7 b) 7:4 c) 7:11 d) 4:7
- 5) The total number of students in a class is 40 and the boys are 15 , then the ratio between girls and boys is
a) 3:5 b) 5:3 c) 3:8 d) 5:8
- 6) If the ratio between two numbers is 1:3 and the first number is 3 , then the second number is
a) 9 b) 3 c) 6 d) 12
- 7) If the ratio of the number of red balls to the number of blue balls is 3 : 4 and the number of blue is 24 , then the number of red is
a) 18 b) 32 c) 44 d) 12
- 8) The next ratio of 3:6 , 6,12 , 12:24 ,
a) 24:48 b) 36:72 c) 24:27 d) 12:24
- 9) If the ratio between a and b is 1 :4 and the sum of a and b is 20 ,then b =
a) 16 b) 4 c) 5 d) 80
- 10) If the ratio between oranges and bananas is 3 : 4 and the number of bananas is 20, then the difference between them is
a) 15 b) 1 c) 5 d) 20
- 11) If the ratio between two numbers is 2:5 and the smaller number is 10, then the greater number is
a) 13 b) 4 c) 7 d) 25
- 12) If 2:7 is equivalent to X:21 , then X =

- a) 12 b) 6 c) 7 d) 21
- 13) If $\frac{8}{X}$ is equivalent to $\frac{1}{2}$, then $X = \dots\dots\dots$
- a) 16 b) 4 c) 8 d) 40
- 14) If $\frac{4}{7}$ is equivalent to $\frac{X}{35}$, then $X - 3 = \dots\dots\dots$
- a) 20 b) 23 c) 17 d) 2
- 15) If the ratio $\frac{3}{4}$ is equivalent to $X : 12$, then $X + 5 = \dots\dots\dots$
- a) 14 b) 8 c) 9 d) 12
- 16) Maria bought 2 kg of banana for 30 L.E. How much money does she pay to buy 6 kg?
- a) 15 b) 34 c) 90 d) 60
- 17) From the following equivalent ratios $B + A = \dots\dots\dots$
- a) 2:3 b) 5 c) 25 d) 31
- 18) The opposite tape diagram represents the ratio
- a) 4:3 b) 3:4 c) 3:5 d) 1:3
- 19) Which ratio is equal to 3:4?
- a) $\frac{5}{6}$ b) $\frac{15}{20}$ c) $\frac{10}{20}$ d) $\frac{6}{10}$
- 20) $\frac{a}{b} = \frac{c}{d}$ Which of the following is true ?
- a) $a \times b = c \times d$ b) $a \times c = b \times d$ c) $a \times d = c \times b$ d) $c \times b = d \times b$
- 21) If $\frac{X+2}{5} = \frac{28}{35}$, then $X = \dots\dots\dots$
- a) 2 b) 4 c) 8 d) 6
- 22) If $\frac{X}{2} = \frac{8}{X}$, where X is a natural number, then $X = \dots\dots\dots$
- a) 2 b) 4 c) 8 d) 6
- 23) If $\frac{3}{0.5} = \frac{X}{1}$, then $X = \dots\dots\dots$
- a) 2 b) 3 c) 9 d) 6
- 24) $\frac{3}{5}$ is NOT equivalent to
- a) $\frac{6}{10}$ b) $\frac{9}{15}$ c) $\frac{12}{25}$ d) $\frac{18}{30}$
- 25) If $\frac{X}{2^2} = \frac{2}{1}$, then $X + 1 = \dots\dots\dots$
- a) 10 b) 4 c) 8 d) 9

2	6	B
5	A	25

- 26) The simplest form of the ratio 550 to 770 is
 a) 7 to 5 b) $\frac{55}{75}$ c) 55:7 d) 5:7
- 27) The product of extremes The product of means
 a) < b) > c) =
- 28) 30 L.E. for 5 kg , then the cost of 30 kg is
 a) 5 b) 30 c) 180 d) 90

Q2 Complete the following :-

- 1) if the ratio between two numbers is 4 : 3 and the sum of them is 14, then the two numbers are
- 2) The first term in the ratio 4 : 7 is
- 3) The simplest form of the ratio 12 to 20 is
- 4) $\frac{5}{8} = \frac{15}{\dots}$
- 5) $\frac{35}{42} = \frac{\dots}{6}$
- 6) If the ratio between a and b is 3 : 8 , and b is 16 , then a =
- 7) The ratio between two numbers is 4 : 5 and the greater number is 20 , then the smaller number is
- 8) If 4 to 9 is equivalent to $\frac{x}{36}$ then x =
- 9) If Farida has 50 pounds and Malak has 25 pounds. Find the ratio between what Malak has and the total sum of money in simplest form is
- 10) If the ratio $\frac{7}{8}$ is equivalent to 14 : X , then x - 2
- 11) The next ratio of 1 : 4 , 2 to 8 , $\frac{4}{16}$ is
- 12) If the ratio $\frac{4}{9}$ is equivalent to $\frac{12}{x-1}$, then X =
- 13) A car consumes 20 liters of benzene for 150 km , then its consumes 10 liters of benzene for km

- 14) If $\frac{5}{X} = \frac{15}{12}$, then $2X = \dots\dots\dots$
- 15) The ratio between side length of square and its perimeter is:.....
- 16) The ratio between side of equilateral triangle and its perimeter is ...:...
- 17) The ratio between perimeter of rhombus and its side length is:.....

Q3 Answer the following :-

- 1) A car consumed 640 L of gasoline in 4 months , how many liters did the car consume in one month ?
- 2) Seif bought 3 kg of oranges. He paid 36 L.E. How much money does he pay to buy 5 kg ?
- 3) Ahmed bought 3 kg of banana he paid 45 L.E. How much money does he pay to buy 6 kg ?
- 4) A runner covers 8 kilometers in 2 hours. Find the distance he covers in 4 hours at the same speed.
- 5) Find the value of X in each of the following :
- a) $\frac{X-1}{5} = \frac{20}{25}$
- b) $\frac{4}{7} = \frac{X+3}{28}$

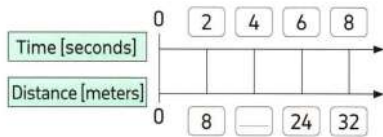
- 6) From the opposite figure $X + Y = \dots\dots\dots$

3	12	x
5	y	10

- 7) From the opposite figure , $AC:FC = \dots\dots\dots$



8) Find the missing number in the following :



3	9	—
7	—	28

4	—
5	10

9) The opposite table shows the ratio between boys and girls , then :

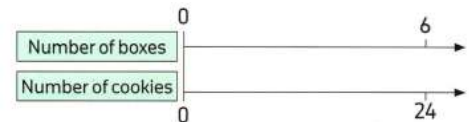
a) The value of A =

b) The value of B =

c) The value of C-B =

Boys	Girls	Total
5	7	A
B	C	48

10) There are 24 cookies in 6 boxes, then find the number of cookies in 3 boxes using double number line .



11) From the opposite tape diagram , if the sum of boys and girls is 35 , then each box equals

Boys			
Girls			

Unit 10

Q1 / Choose the correct answer :-

1) Which of the following is not a unit rate ?

- a) 140 L.E.weekly b) 90 km per 60 minutes c) 25 L.E. for each kg d) 2 kg of flour per a cake

2) 30 LE. for 5 kg , then the cost of 30 kg is

- a) 5 b) 30 c) 90 d) 180

3) A car consumes $\frac{1}{10}$ liter of petrol to cover 1 km , then it covers km per liter.

- a) 1 b) 5 c) 10 d) 20

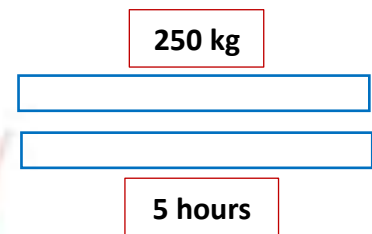
4) The missing numbers in the opposite ratio table are

Kg	1	2	3	4
L.E.				200

- a) 40 , 80 , 120 b) 50 , 100 , 150 c) 45 , 90 , 135 d) 60 , 120 , 180

5) The unit rate of the opposite tape diagram is

- a) 250 km per 5 hours b) 50 km per hour
c) 55 km per hour d) 100 km per 2 hours



6) By using the opposite double number Line , the unit rate is

- a) 60 kg per day b) 30 kg per day c) 60 kg per 2 days d) 100 kg per 3 days



7) Which of the following is a conversion factor?

- a) $\frac{3km}{1h}$ b) $\frac{60min}{1sec}$ c) $\frac{7days}{1week}$ d) $\frac{1km}{1000cm}$

8) Which of the following is NOT a conversion factor?

- a) 1 h = 3600 sec b) 12 months : 1 year c) 1000 mm = 1 liter d) $\frac{1min}{60sec}$

9) $\frac{1 \text{ km}}{\dots}$ is a conversion factor ?

- a) 1 hour b) 1000 m c) 100 m d) 10000mm

10) $\frac{60 \text{ km}}{1 \text{ h}} \times \dots = \frac{60000 \text{ m}}{1 \text{ h}}$

- a) $\frac{1 \text{ km}}{1000 \text{ m}}$ b) $\frac{1000 \text{ km}}{1 \text{ m}}$ c) $\frac{1 \text{ m}}{1000 \text{ km}}$ d) $\frac{1000 \text{ m}}{1 \text{ km}}$

11) 120 m per min = cm per sec

- a) 12000 b) 200 c) 720 d) 1200

12) 3.6 L $\times$ = 3600 mL

- a) $\frac{1000 \text{ l}}{1 \text{ ml}}$ b) $\frac{100 \text{ ml}}{1 \text{ l}}$ c) $\frac{1000 \text{ ml}}{1 \text{ l}}$ d) $\frac{1 \text{ l}}{1000 \text{ ml}}$

13) $2\frac{1}{4}$ day = hours .

- a) 54 b) 48 c) 2400 d) 24

14) 360 sec =h.

- a) 60 b) 10 c) 3600 d) 0.1

15) The conversion factor to convert the speed from m per min to km per hr is

- a) $\frac{60 \text{ min}}{1 \text{ h}}$ b) $\frac{1 \text{ km}}{1000 \text{ m}}$ c) $\frac{1 \text{ h}}{60 \text{ min}} \times \frac{1 \text{ km}}{1000 \text{ m}}$ d) $\frac{1 \text{ km}}{1000 \text{ m}} \times \frac{60 \text{ min}}{1 \text{ h}}$

16) 60 meters per hour = meter(s) per min.

- a) 3600 b) 120 c) 360 d) 1

17) $\frac{1 \text{ m}}{\dots}$ is NOT a conversion factor

- a) 100 cm b) 1000 mm c) 0.001 km d) 60 min

18) 4.8 L $\times$ = 4800 ml

- a) $\frac{100 \text{ ml}}{1 \text{ L}}$ b) $\frac{1000 \text{ L}}{1 \text{ ml}}$ c) $\frac{1000 \text{ ml}}{1 \text{ l}}$ d) $\frac{1 \text{ l}}{1000 \text{ ml}}$

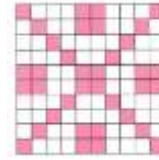
19) If the price of one kilogram of orange is 15 L.E. then the price of 4 kg

- a) $3\frac{3}{4}$ b) 30 c) 90 d) 60

20) $3 : 10 = \dots\dots\dots \%$

- a) 30 b) 12 c) 25 d) 36

21) The opposite shaded area represents each of the following except



- a) 36 b) 0.36 c) 36% d) $\frac{9}{25}$

22) 50% of a number =

- a) the whole number b) half of a number c) third of a number d) quarter of number

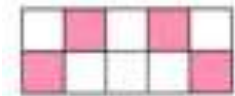
23) Which value is NOT equivalent to 55% ?

- a) $\frac{11}{20}$ b) $\frac{55}{100}$ c) 0.55 d) 0.055

24) $1\frac{1}{4} = \dots\dots\dots \%$

- a) 25 b) 125 c) 75 d) 175

25) The opposite figure ,The percentage of the shaded part to whole =



- a) 0.4 b) 40 c) 4 d) 60

26) $1 - 25\% = \dots\dots\dots$

- a) $\frac{3}{4}$ b) $\frac{1}{4}$ c) $\frac{3}{8}$ d) $\frac{1}{8}$

27) If the percent of boys in a school is 62% then the percent of girls is ...%

- a) 62 b) 42 c) 48 d) 38

28) Marwan ate 75% of a pizza, so he ate half the pizza.

- a) exactly b) less than c) more than d) otherwise

29) class has 24 students, 50% of them succeeded in the mathematics exam, then the number of students succeeded in the mathematics exam is

- a) 24 b) 12 c) 18 d) 6



30) From the opposite table ,
the value of unknown =

Whole	Part	Percent
Unknown	120	40 %

- a) 30 b) 120 c) 480 d) 300

31) If the price of a watch is 350 L.E. , then 1% of its price is

- a) 3.5 b) 0.35 c) 35 d) 0.035

32) If $\frac{x}{5} = 20\%$, then $x =$

- a) 2 b) 1 c) 4 d) 5

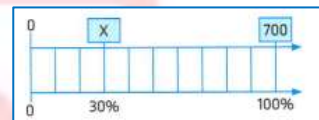
33) 40% of a number = % of half of the same number.

- a) 20 b) 10 c) 80 d) 100

34) If the price of a TV set is 20,000 pounds ,
then 1% of its price = pounds .

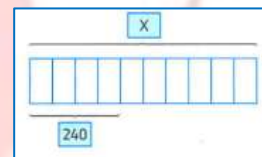
- a) 20 b) 200 c) 400 d) 2000

35) From the opposite double number
line $X =$



- a) 70 b) 210 c) 140 d) 420

36) From the opposite diagram
 $X =$



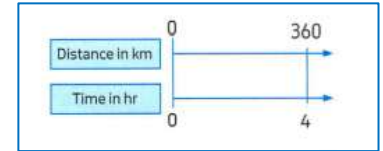
- a) 600 b) 400 c) 240 d) 2400

37) 25% of 1000 = 50% of

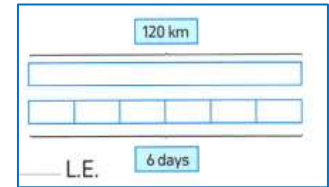
- a) 2000 b) 1500 c) 1250 d) 500

Q2 / Complete the following :-

1) From the opposite double number line , the unit rate is



2) The unit rate from the opposite tape diagram is



3) gm = 30 kg

4) 1,500 kg = gm.

5) 2.5 hr = min.

6) 60 meters per min = meter(s) per sec.

7) 54 L.E. for 9 kg , then the cost of 6 kg is

8) 48 km per hr = meter per min

9) 120 km per hour = meter per min.

10) The percentage is a ratio

11) $36\% + 24\% - 17\% = \dots\dots\dots$

12) $12\% - 4\% = \dots\dots\dots$

13) $1 - (39\% + 0.21) = \dots\dots\dots \%$

14) $1 - \frac{3}{4} = \dots\dots\dots \%$

15) $\frac{7}{3} \times \frac{3}{7} = \dots\dots\dots \%$

16) $15\% - 0.15 = \dots\dots\dots$

17) $225\% - 1\frac{1}{4} = \dots\dots\dots$

18) $0.35 + \frac{9}{20} = \dots\dots\dots \%$

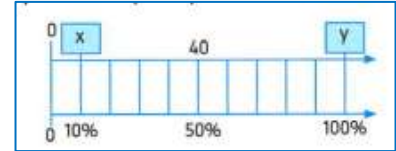
19) $15\% + 0.35 + \frac{1}{2} = \dots\dots\dots \%$

20) $35\% \div \frac{7}{20} = \dots\dots\dots \%$

21) If the ratio 3:4 is equivalent to $\frac{9}{x-1}$ then x =

22) 10 % of 50 kg = kg.

- 23) A store offers a discount 10% off on a shirt of price 300 L.E. ,then the discount = L.E.
- 24) $32\% = 1 - \dots\dots\dots \%$
- 25) If the price of a ball is 120 L.E. then 10% of its price is L.E.
- 26) 25% of 1,000 = 50% of
- 27) From the opposite double number line ,
the value of $x + y = \dots\dots\dots$
- 28) 15% of 240 kg = kg
- 29) 2 to 5 = %
- 30) % of 600 L.E. = 120 L.E.
- 31) 20% of a number = % of half of the same number.
- 32) 45% of a kilometer = m



Q3 / Answer the following :-

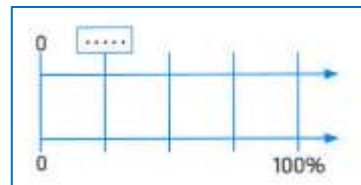
- 1) Which is the longest 1.34 m or 200 cm ?**
- 2) Eman covered $\frac{3}{4}$ km in 6 min. What is the distance covered in 2 min ?**
- 3) Is (490 pounds per 7 kg of apples) a unit rate or not?**
- 4) Two machines produce cloth ,the first one produces 365 meters in 5 hours and the second produces 480 meters in 6 hours. Which machine is better ?**
- 5) On most summer days, camels drink about 20,000 milliliters of water. How many liters of water is that ? Show your calculations**
- 6) Assuming you stored 30 boxes of goods, which is 50% of the boxes, what is the total number of boxes?**
- 7) Youssef bought a car for 70,000 pounds , he paid 25% of its price. How much money did he pay ?**

- 8) The price of a mobile phone before a discount is 3,000 pounds. if the discount is 10 %, What is its price after the discount ?
- 9) If a man deposited 20,000 pounds in a bank with interest 20% per year. Find the total amount which he gets at the end of one year.
- 10) On the sale a shop offers a discount 20% if the price of an article is 1,600 pounds. Find its price after discount
- 11) A piece of cloth of 10 meters long , was put in water. it shrunk by 4% What is the length after shrinking ?
- 12) 20% of the students in a class are wearing black There are 40 students in the class. How many students are wearing black ?
- 13) 60 Children from school went to a trip and this is 40% of all children in the school. How many all children in the school ?
- 14) Assuming you stored 20 boxes of goods, which is 80% of the boxes, what is the total number of boxes?

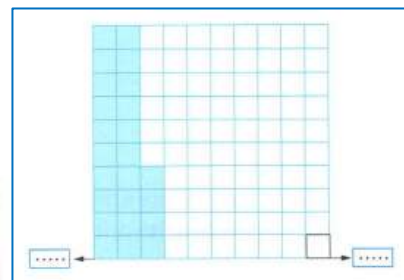
- 15) Select 10% and then use it as a reference percentage to find the following percentages: 30% of 900 pounds?
- 16) A shirt that costs 1200 EGP has a 40% discount, calculate the value of the amount saved and the price of the shirt after the discount?
- 17) Find the value of X
- a) $\frac{x}{8} = \frac{10}{20}$ b) $\frac{x+1}{10} = 30\%$ c) $\frac{2}{x+8} = 5\%$

18) Find the value of each of the following by using the given model .

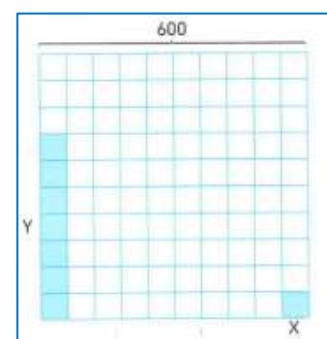
a) 25% of 80



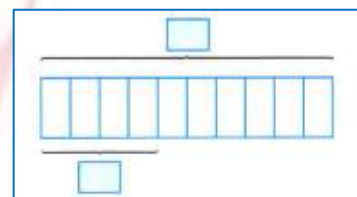
b) 24% of a number is 72



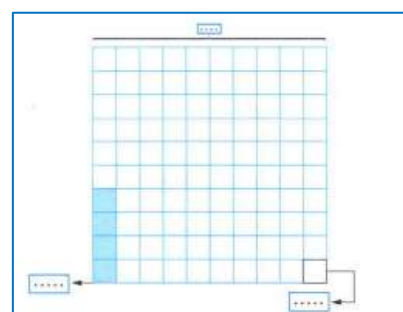
19) From the opposite 10 × 10 grid , Find: X + Y



20) If 40% of a number is 140 find , that number by using the opposite tape diagram .



21) Find the value of 4% of 200 by using the opposite 10 × 10 grid.



- 22)** We ate 5 out of 10 bananas.
What percentage of the bananas did we eat? Determine the part, whole, and percentage of this question:

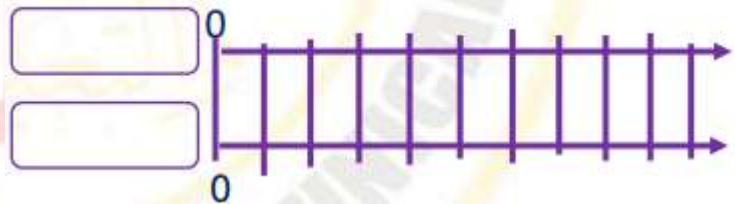
The total	The part	Percentage
.....		

- 23)** 300 out of the total number of students in the school have pets, which is 25% of the total number of students in the school, how many students are in the school? From this question, Write the values that represent the part, the whole, and the percentage.

The total	The part	Percentage
.....		

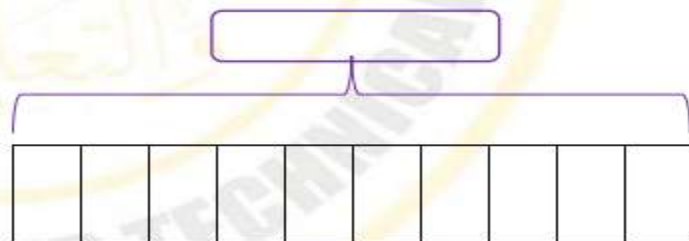
- 24)** Use the double number line to determine the percentage of time Farida spent practicing swimming on Monday.

Walid's exercise schedule	
	Swimming (minutes)
Weekly exercise	70
Exercise on Mondays	21



- 25)** Use the tape diagram to determine the percentage of time Izz spent practicing swimming on Sunday.

Izz's exercise schedule	
	Swimming (minutes)
Weekly exercise	60
Exercise on Sundays	12



Unit 11

Q1 Choose the correct answer :-

1) point both of whose coordinates are negative will Lie in

- a) 1st quadrant b) 2nd quadrant c) 3rd quadrant d) 4th quadrant

2) If the y-coordinate of a point is zero, then this point always lies

- a) 1st quadrant b) 2nd quadrant c) on Y-axis d) on X-axis

3) point (0 , -7) lie on

- a) 1st quadrant b) 4th quadrant c) on Y-axis d) on X-axis

4) point (-3 , 4) lie on

- a) 1st quadrant b) 2nd quadrant c) 3rd quadrant d) 4th quadrant

5) If the x-coordinate of a point is zero, then this point Lies

- a) 1st quadrant b) 2nd quadrant c) on Y-axis d) on X-axis

6) Which point lies in the third quadrant ?

- a) (0 , -5) b) (5 , -11) c) (-5 , 0) d) (-5 , -11)

7) Which of the following points lies on the y-axis ?

- a) (-1 , 0) b) (0 , -1) c) (5 , 0) d) (3 , 3)

8) The points (-5 , 2) and (2 , -5) tie in the

- a) 2nd and 4th quadrants, respectively b) Same quadrant
c) 2nd and 3rd quadrants, respectively d) 4th nd and 3rd quadrants, respectively

9) The image of the point (2 , -5) by reflection across the x-axis is the point

- a) (2 , -5) b) (-2 , 5) c) (2 , 5) d) (-2 , -5)

10) The image of the point (4 , 0) by reflection across the y-axis is the point

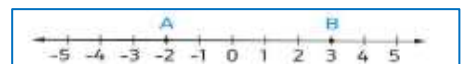
- a) (-4 , 0) b) (0 , -4) c) (4 , 0) d) (0 , 4)

11) If the point A (- 2 , 3) moved 2 units to the right then 3 units downward, then A will be

- a) (-2 , 0) b) (0 , 1) c) (0 , 0) d) (1 , 1)

12) The distance between a and b is

- a) 1 units b) 4 units c) 5 units d) 6 units



13) If we have the points A (5 , -5) and B (5,4), then the length of AB =

- a) 10 units b) 4 units c) 5 units d) 9 units

14) If the two points A (1 , 2) and B (5,4) are two vertices of a right-angled triangle ABC , then the point C could be

- a) (1 , 4) b) (1 , 3) c) (3 , 1) d) (4 , 1)

15) If A (1 , 3) and C (4 , 1) and $AB \perp BC$, then the point B is

- a) (1 , 4) b) (1 , 1) c) (3 , 1) d) (4 , 2)

16) The point (-2,3) lies in the

- a) 1st quadrant b) 2nd quadrant c) 3rd quadrant d) 4th quadrant

17) The distance between the point (2 , 3) and its image by reflection across y-axis = units .

- a) 3 b) 2 c) 6 d) 4

18) The point at the position (-1 , 3) has moved 2 units to the right and 3 units upwards then its new position is

- a) (2 , 5) b) (0 , 5) c) (0 , 6) d) (1 , 6)

19) In the opposite figure , the distance between the two points A and B = units .

- a) 20 b) 210 c) 190 d) 400



Q2 Complete the following :-

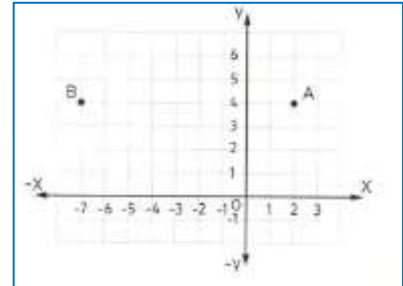
- 1) If the two points A(-2,2) and B (3,a) are on the same horizontal line in the coordinate plane, then $a = \dots\dots\dots$
- 2) The image of the point (-4,1) by reflection in the y-axis is the point $\dots\dots\dots$
- 3) If the point (-1,4) is the image of the point (a, b) by reflection in the y-axis, then $a+b = \dots\dots\dots$
- 4) The distance between the point (0, -4) and the origin O = $\dots\dots\dots$ units .
- 5) The distance between C (3,-4) and D (3,-2) is $\dots\dots\dots$ units
- 6) The point (4,3) lies in the $\dots\dots\dots$ quadrant
- 7) The point $(-2\frac{1}{4}, 0)$ lies on the $\dots\dots\dots$ -axis.
- 8) The distance between A and B is $\dots\dots\dots$ units .
- 9) The distance between the two points (3, -4) and (3, 7) is $\dots\dots\dots$ units .
- 10) The distance between A (2, y) and B (2, -1) is 6 units and the point A lies in first quadrant, then $y = \dots\dots\dots$
- 11) The distance between the point (1, 2) and its image by reflection across x-axis = $\dots\dots\dots$ units .
- 12) The point M is located 3 units to the right and 5 units up from the origin point, then the ordered pair that represents the point M is $\dots\dots\dots$
- 13) The point (4, 2) is $\dots\dots\dots$ units from the y-axis



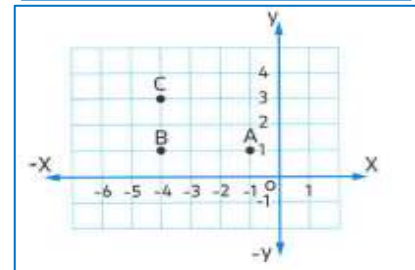
- 14) In the opposite figure: if $AB = 30$ units, then $X = \dots\dots\dots$



- 15) In the opposite coordinate plane ,
the length of $AB = \dots\dots\dots$ units.

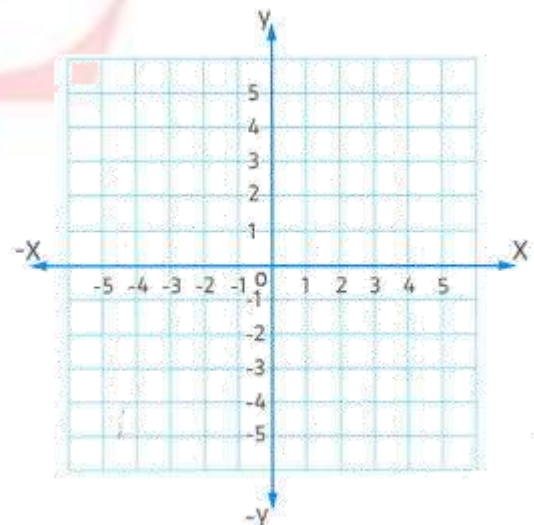


- 16) From the opposite coordinate plane ,
if $ABCD$ is a rectangle ,then the coordinate of
the point D is ($\dots\dots\dots$, $\dots\dots\dots$)



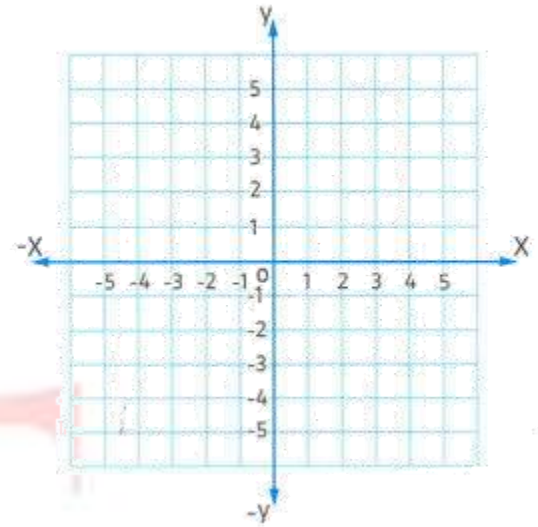
- 17) Plot the following points on the
opposite grid :-
 $A (3,2)$, $B (-3,2)$, $C (-3,-2)$ and $D (3,-2)$

- b) Now, connect them.
c) Identify the shape.



18) In the opposite figure :

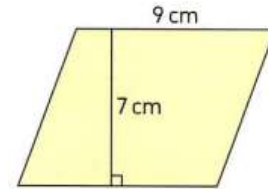
Graph the points A (4,4), B (4,1) and C (1,1) join them to draw the triangle ABC and find the images of each point by reflection across the X-axis



Unit 12

Q1 Choose the correct answer :-1) Area of a parallelogram =cm²

- a) 63 b) 16
c) 32 d) 79

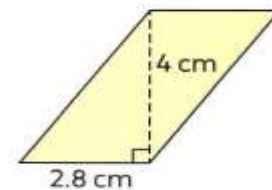


2) The corresponding base in the parallelogram to the height DE is

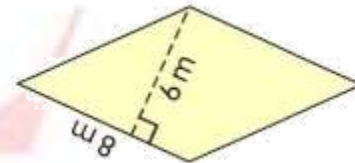
- a) AB b) BC
c) CE d) CD

3) Area of opposite parallelogram = m²

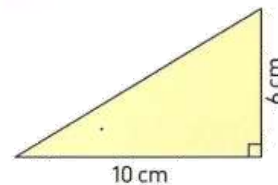
- a) 6.8 b) 11.2
c) 13.6 d) 24.8

4) Area of opposite rhombus = m²

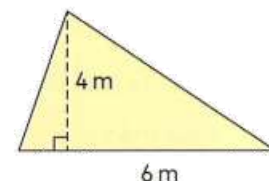
- a) 14 b) 48
c) 24 d) 28

5) Area of a triangle =cm²

- a) 60 b) 16
c) 30 d) 15

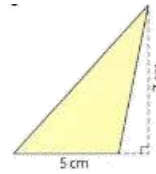
6) Area of a triangle =m²

- a) 24 b) 12
c) 10 d) 46



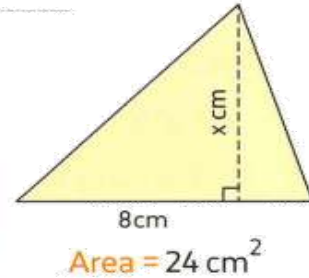
7) Area of a triangle =cm²

- a) 35 b) 21
c) 17.5 d) 79



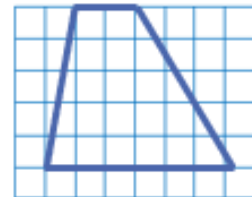
8) The value of X =

- a) 3 b) 12
c) 6 d) 14



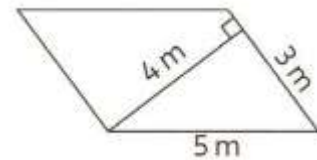
9) Area of a trapezium = square units

- a) 18 b) 20
c) 24 d) 30



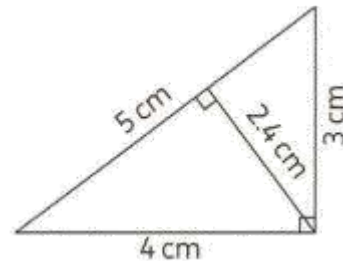
10) Area of a parallelogram = square units

- a) 20 b) 12
c) 15 d) 8



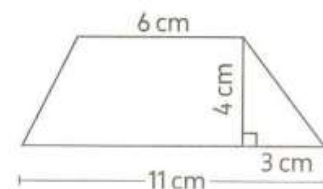
11) Which expression represents the area of the drawn triangle ?

- a) $\frac{1}{2} \times 3 \times 5$ b) $\frac{1}{2} \times 2.4 \times 4$
c) $\frac{1}{2} \times 3 \times 4$ d) $\frac{1}{2} \times 4 \times 5$



12) The area of opposite trapezium is cm²

- a) 34 b) 30
c) 55 d) 40



13) A parallelogram with area 24 cm^2 and base length 6 cm , then its corresponding height =

- a) 3 b) 4 c) 5 d) 6

14) Area of a parallelogram =

- a) $b + h$ b) $b \div h$ c) $b \times h$ d) $(b + h) \times 2$

15) The height of a rhombus whose area is 10 cm^2 and side length 50 mm is cm

- a) 50 b) 20 c) 2 d) 500

16) Area of a rhombus whose side length is 2.4 cm and its height is 2 cm is cm^2

- a) 4.8 b) 5.6 c) 8 d) 10.2

17) Area of triangle =

- a) $\frac{1}{2} + b + h$ b) $\frac{1}{2} \times (b + h)$ c) $\frac{1}{2} \times b \times h$ d) $2 \times b \times h$

18) If ABC is a right-angled triangle at B , and $BC = 10\text{cm}$, $AB = 8\text{cm}$ then its area = cm^2

- a) 40 b) 80 c) 18 d) 9

19) If the area of a triangle is 30.25 m^2 and its base length is 5.5 m, then its corresponding height =m

- a) 5.5 b) 11 c) 2.75 d) 24.75

20) If the perimeter of an equilateral triangle is 27cm and its height is 7.8 cm , then its area = cm^2

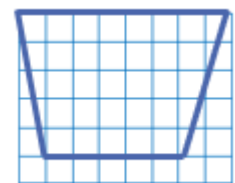
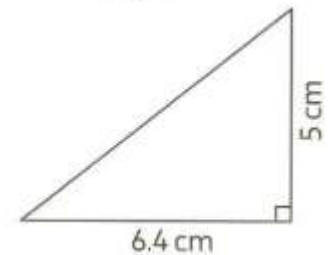
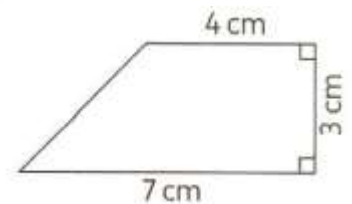
- a) 105.3 b) 210.6 c) 70.2 d) 35.1

21) A rhombus of side length 14 cm and the ratio between its height and its side length is 5 : 7, then the area of the rhombus is

- a) 35 cm^2 b) 70 cm^2 c) 100 cm^2 d) 140 cm^2

Q2 Complete the following :-

- 1) A parallelogram of area 3.6 m^2 and a base length 0.9 m , then its corresponding height ism
- 2) If a base length of a parallelogram is 10 m and its corresponding height is 3 m less than it , then the area of the parallelogram is cm^2
- 3) If the two dimensions of a parallelogram are 7 cm and 4 cm and its smaller height is 6 cm , then its area is cm^2
- 4) The area of the rhombus whose perimeter is 20 cm and its height is 3.4 cm is cm^2
- 5) The area of opposite trapezium is cm^2
- 6) The area of opposite triangle is cm^2
- 7) The area of opposite trapezium is cm^2

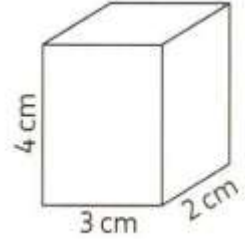


Unit 13

Q1 Choose the correct answer :-

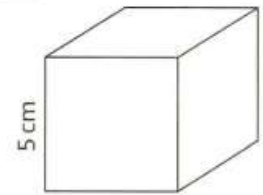
20) The surface area of the following cuboid =cm²

- a) 12 b) 52
c) 24 d) 104



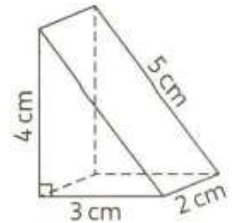
21) The surface area of the following cube =cm²

- a) 25 b) 75
c) 50 d) 150



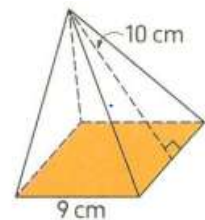
22) The surface area of the triangular prism =cm²

- a) 24 b) 48
c) 38 d) 56



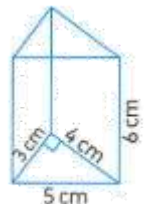
23) The surface area of the square pyramid =cm²

- a) 148 b) 240
c) 156 d) 261



24) The surface area of the following triangular prism =cm²

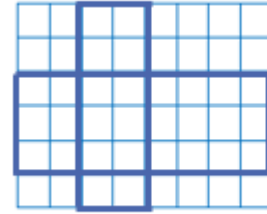
- a) 72 b) 84
c) 42 d) 60



25) The surface area of the following cuboid =cm²

- a) 30
c) 32

- b) 16
d) 24



26) The side length of the cube which its surface area equals 96 m² equals

a) 5m

b) 3m

c) 2m

d) 4m

27) Which of following expressions represents the surface area of a cube with side length w ?

a) w²

b) 6w²

c) 6w³

d) 2w + 4w²

28) If the three dimensions of a cuboid are doubled, then the ratio between the new volume to the original volume of the cuboid is

a) 8 : 1

b) 1 : 8

c) 1 : 4

d) 4 : 1

29) The perimeter of one face of a cube is 28 cm, then the surface area of the cube is

a) 168

b) 244

c) 294

d) 314

Q2 Complete the following :-

- 1) The surface area of a cuboid that has length of 6 cm , width of 3 cm , height of 9 cm is
- 2) The surface area of a cube of side length 3.5 m is
- 3) The surface area of a cuboid that has a square base of side length 5 cm, and a height 8 cm is
- 4) The volume of the cuboid = × height
- 5) The volume of the cuboid = × × height

- 6) If one dimension of a cuboid is doubled , then the ratio of the new volume to the original volume in the simplest form is
- 7) A cuboid of volume 200 cm^3 , if its length is doubled , then the new volume of the cuboid is cm^2
- 8) A gift box in the shape of a cube of side length 30 cm, then its surface area is cm^2
- 9) A cuboid of square base of side length 5 cm, and its height is 12 cm , then its volume is
- 10) Which has the greater surface area : a cube of side length 10 cm or a cuboid of Length 10 cm, width 9 cm and high 5 cm

Answers

Unit 8

Q1 Choose the correct answer :-

1) $\frac{4}{7} \div \dots = 1\frac{1}{2}$

a) $\frac{8}{21}$

b) $\frac{21}{8}$

c) $\frac{6}{7}$

d) $\frac{7}{6}$

2) $\dots \div \frac{3}{8} = \frac{5}{6}$

a) $\frac{18}{40}$

b) $\frac{15}{16}$

c) $\frac{1}{2}$

d) $\frac{5}{16}$

3) $\dots \times \frac{2}{5} = \frac{4}{14}$

a) $\frac{2}{3}$

b) $\frac{5}{7}$

c) $\frac{3}{2}$

d) 3

4) $\dots \times 1\frac{1}{2} = 1$

a) $\frac{2}{3}$

b) $\frac{1}{3}$

c) $\frac{3}{2}$

d) 3

5) $\frac{3}{5} \times \dots = 1$

a) $\frac{8}{5}$

b) $\frac{3}{5}$

c) $1\frac{2}{3}$

d) 1

6) Half of 22 =

a) 11

b) 22

c) 44

d) 2

7) How many $\frac{1}{6}$ s are there in $\frac{1}{2}$ apple ?

a) 1

b) 12

c) 3

d) $\frac{1}{3}$

8) How many $\frac{3}{4}$ s are there in 6 apple ?

a) 8

b) $\frac{18}{4}$

c) 7

d) $4\frac{1}{2}$

9) $87.29 \div 0.29 = 872.9 \div \dots$

a) 2.9

b) 29

c) 290

d) 0.29

10) $327 \div 24 = 3.27 \div \dots$

a) 2.4

b) 0.24

c) 24

d) 2004

11) If $123 \times 45 = 5535$, then $1.23 \times 4.5 = \dots$

a) 55.35

b) 553.5

c) 5.535

d) 5535

12) If $127.92 \div 4.1 = 31.2$, then $12.792 \div 4.1 = \dots$



a) 0.312

b) 3.12

c) 31.2

d) 312

13) $48 \times 36 = 1728$ then $17.28 \div 3.6 = \dots\dots\dots$

a) 48

b) 480

c) 0.48

d) 4.8

14) $0.33 \div 0.011 = \dots\dots\dots \div 11$

a) 33

b) 0.33

c) 330

d) 3300

15) Yara uses $\frac{6}{8}$ cup of flour to make 2 cupcakes , how much flour is used to make 1 cupcake ?a) $\frac{12}{8}$ b) $\frac{3}{8}$ c) $\frac{2}{8}$ d) $\frac{1}{8}$ 16) $\frac{2}{3} \div \frac{1}{3} \dots\dots\dots \frac{1}{2}$

a) <

b) >

c) =

17) Any number multiplied by its reciprocal equals

a) same number

b) 0

c) 1

d) double number

Q2 Complete the following :-

1) The reciprocal of $3\frac{3}{4}$ is $\frac{4}{15}$ 2) $\frac{4}{3} \div \frac{2}{9} = 6$ (simplest form)3) $5 \div \frac{1}{2} = 10$ (simplest form)4) $\frac{3}{4} \div 3 = \frac{1}{4}$ (simplest form)5) $\frac{3}{5} \div \frac{3}{5} = 1$ (simplest form)6) $\frac{2}{7} \div \frac{2}{4} = \frac{4}{7}$ (simplest form)7) $\frac{1}{4} \times 4 = 1$ 8) $0.65 \times 0.2 = 0.13$ 9) $0.676 \times 0.1 = 0.0676$ 10) $2.4 \times 3.6 = 8.64$ 11) $54.45 \div 0.9 = 60.6$ 

12) $4.8 \div 0.16 = 30$

13) Fifth of 15 = 3

14) $\frac{2}{3}$ of 27 = 18

15) The number of $\frac{2}{5}$ in 2 is 5

16) $\frac{3}{4} \div m = \frac{3}{8}$, then $m = 2$

17) $\frac{3}{4} \times m = \frac{3}{8}$, then $m = \frac{1}{2}$

18) $5 \div \frac{2}{3} = 5 \times \frac{3}{2}$

Q3 Answer the following :-

1) If you need to buy 1.5 kilograms of apples at a cost of 40.50 pounds per kilogram , how much money would you pay ? **60.75 L.E**

2) Maria covered $\frac{2}{3}$ kilometers in 5 min. what is the distance covered in one minute ? **$\frac{2}{15}$ K.m**

3) If the price of one meter of cloth 9.8 , what is the cost of 1.5 meters of cloth ? **14.7 L.E**

4) A runner covered $\frac{4}{5}$ kilometer in 2 Laps. How many kilometers did he run in one lap ? **$\frac{2}{5}$**

5) Soha divided 127.5 L.E. among her three sons. Find the share of each one. **42.5 L.E**

Unit 9

Q1 Choose the correct answer :-

- 1) The ratio between 6:14 in the simplest form is 3:.....
a) 2 b) 3 c) 11 d) 7
- 2) The ratio between two side lengths of square:.....
a) 1:4 b) 2:4 c) 1:1 d) 1:2
- 3) To find the simplest form of the ratio 6:12, we divide the two terms by
a) 2 b) 3 c) 6 d) 1
- 4) If the ratio between apples to oranges is 4 : 7, then ratio between oranges to apples is
a) 11:7 b) 7:4 c) 7:11 d) 4:7
- 5) The total number of students in a class is 40 and the boys are 15 , then the ratio between girls and boys is
a) 3:5 b) 5:3 c) 3:8 d) 5:8
- 6) If the ratio between two numbers is 1:3 and the first number is 3 , then the second number is
a) 9 b) 3 c) 6 d) 12
- 7) If the ratio of the number of red balls to the number of blue balls is 3 : 4 and the number of blue is 24 , then the number of red is
a) 18 b) 32 c) 44 d) 12
- 8) The next ratio of 3:6 , 6,12 , 12:24 ,
a) 24:48 b) 36:72 c) 24:27 d) 12:24
- 9) If the ratio between a and b is 1 : 4 and the sum of a and b is 20 ,then b =
a) 16 b) 4 c) 5 d) 80
- 10) If the ratio between oranges and bananas is 3 : 4 and the number of bananas is 20, then the difference between them is
a) 15 b) 1 c) 5 d) 20
- 11) If the ratio between two numbers is 2:5 and the smaller number is 10, then the greater number is
a) 13 b) 4 c) 7 d) 25
- 12) If 2:7 is equivalent to X:21 , then X =

- a) 12 **b) 6** c) 7 d) 21
- 13) If $\frac{8}{X}$ is equivalent to $\frac{1}{2}$, then $X = \dots\dots\dots$
- a) 16 b) 4 c) 8 d) 40
- 14) If $\frac{4}{7}$ is equivalent to $\frac{X}{35}$, then $X - 3 = \dots\dots\dots$
- a) 20 b) 23 **c) 17** d) 2
- 15) If the ratio $\frac{3}{4}$ is equivalent to $X : 12$, then $X + 5 = \dots\dots\dots$
- a) 14 b) 8 c) 9 d) 12
- 16) Maria bought 2 kg of banana for 30 L.E. How much money does she pay to buy 6 kg?
- a) 15 b) 34 **c) 90** d) 60
- 17) From the following equivalent ratios $B + A = \dots\dots\dots$
- a) 2:3 b) 5 **c) 25** d) 31
- 18) The opposite tape diagram represents the ratio
- | | | |
|---|---|----|
| 2 | 6 | B |
| 5 | A | 25 |
- a) 4:3** b) 3:4 c) 3:5 d) 1:3
- 19) Which ratio is equal to 3:4?
- | | | | |
|--|--|--|--|
| | | | |
| | | | |
- a) $\frac{5}{6}$ **b) $\frac{15}{20}$** c) $\frac{10}{20}$ d) $\frac{6}{10}$
- 20) $\frac{a}{b} = \frac{c}{d}$ Which of the following is true ?
- a) $a \times b = c \times d$ b) $a \times c = b \times d$ **c) $a \times d = c \times b$** d) $c \times b = d \times b$
- 21) If $\frac{X+2}{5} = \frac{28}{35}$, then $X = \dots\dots\dots$
- a) 2** b) 4 c) 8 d) 6
- 22) If $\frac{X}{2} = \frac{8}{X}$, where X is a natural number, then $X = \dots\dots\dots$
- a) 2 **b) 4** c) 8 d) 6
- 23) If $\frac{3}{0.5} = \frac{X}{1}$, then $X = \dots\dots\dots$
- a) 2 b) 3 c) 9 **d) 6**
- 24) $\frac{3}{5}$ is NOT equivalent to
- a) $\frac{6}{10}$ b) $\frac{9}{15}$ **c) $\frac{12}{25}$** d) $\frac{18}{30}$
- 25) If $\frac{X}{22} = \frac{2}{1}$, then $X + 1 = \dots\dots\dots$
- a) 10 b) 4 c) 8 d) 9

- 26) The simplest form of the ratio 550 to 770 is
a) 7 to 5 b) $\frac{55}{75}$ c) 55:7 d) 5:7
- 27) The product of extremes The product of means
a) < b) > c) =
- 28) 30 L.E. for 5 kg , then the cost of 30 kg is
a) 5 b) 30 c) 180 d) 90

Q2 Complete the following :-

- 1) if the ratio between two numbers is 4 : 3 and the sum of them is 14, then the two numbers are 8 and 6
- 2) The first term in the ratio 4 : 7 is 4
- 3) The simplest form of the ratio 12 to 20 is 3 : 5
- 4) $\frac{5}{8} = \frac{15}{24}$
- 5) $\frac{35}{42} = \frac{5}{6}$
- 6) If the ratio between a and b is 3 : 8 , and b is 16 , then a = 6
- 7) The ratio between two numbers is 4 : 5 and the greater number is 20 ,then the smaller number is 16
- 8) If 4 to 9 is equivalent to $\frac{x}{36}$ then x = 16
- 9) If Farida has 50 pounds and Malak has 25 pounds , then the ratio between what Malak has and the total sum of money in simplest form is 1 : 3
- 10) If the ratio $\frac{7}{8}$ is equivalent to 14 : X , then x - 2 is 14
- 11) The next ratio of 1 : 4 , 2 to 8 , $\frac{4}{16}$ is 8 : 32
- 12) If the ratio $\frac{4}{9}$ is equivalent to $\frac{12}{x-1}$, then X = 28
- 13) A car consumes 20 liters of benzene for 150 km , then its consumes 10 liters of benzene for 75 km
- 14) If $\frac{5}{x} = \frac{15}{12}$, then 2X = 8
- 15) The ratio between side length of square and its perimeter is 1 : 4
- 16) The ratio between side of equilateral triangle and its perimeter is 1 : 3
- 17) The ratio between perimeter of rhombus and its side length is 4 : 1

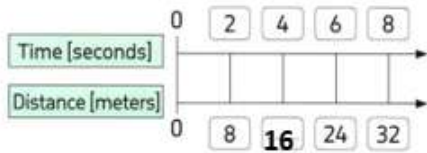
Q3 Answer the following :-

- 1) A car consumed 640 L of gasoline in 4 months , how many liters did the car consume in one month ? **160 liters**
- 2) Seif bought 3 kg of oranges. He paid 36 L.E. How much money does he pay to buy 5 kg ? **60 L.E**
- 3) Ahmed bought 3 kg of banana he paid 45 L.E. How much money does he pay to buy 6 kg ? **90 L.E**
- 4) A runner covers 8 kilometers in 2 hours. Find the distance he covers in 4 hours at the same speed. **16 K.m**
- 5) Find the value of X in each of the following :
- c) $\frac{X-1}{5} = \frac{20}{25}$ **x = 5**
- d) $\frac{4}{7} = \frac{X+3}{28}$ **x = 13**
- 6) From the opposite figure $X + Y = 6 + 20 = 26$
- 7) From the opposite figure , $AC:FC = 2 : 3$

3	12	x
5	y	10



8) Find the missing number in the following :



3	9	12
7	21	28

4	8
5	10

9) The opposite table shows the ratio between boys and girls , then :

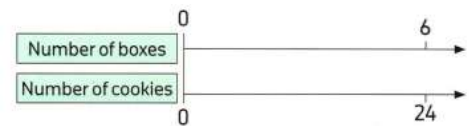
a)The value of A = 12

b)The value of B = 20

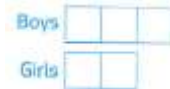
c)The value of C-B = 8

Boys	Girls	Total
5	7	A
B	C	48

10) There are 24 cookies in 6 boxes, then find the number of cookies in 3 boxes using double number line . 12 cookies



11) From the opposite tape diagram , if the sum of boys and girls is 35 , then each box equals 5



Unit 10

Q1 / Choose the correct answer :-

1) Which of the following is a unit rate ?

- a) 140 L.E.weekly **b) 90 km per 60 minutes** c) 25 L.E. for each kg d) 2 kg of flour per a cake

2) 30 LE. for 5 kg , then the cost of 30 kg is

- a) 5 b) 30 c) 90 **d) 180**

3) A car consumes $\frac{1}{10}$ liter of petrol to cover 1 km , then it covers km per liter.

- a) 1 b) 5 **c) 10** d) 20

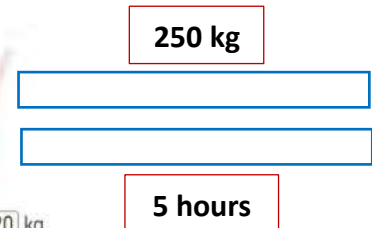
4) The missing numbers in the opposite ratio table are

Kg	1	2	3	4
L.E.				200

- a) 40 , 80 , 120 **b) 50 , 100 , 150** c) 45 , 90 , 135 d) 60 , 120 , 180

5) The unit rate of the opposite tape diagram is

- a) 250 km per 5 hours **b) 50 km per hour**
c) 55 km per hour d) 100 km per 2 hours



6) By using the opposite double number line , the unit rate is

- a) 60 kg per day **b) 30 kg per day** c) 60 kg per 2 days d) 100 kg per 3 days



7) Which of the following is a conversion factor?

- a) $\frac{3km}{1h}$ b) $\frac{60min}{1sec}$ **c) $\frac{7days}{1week}$** d) $\frac{1km}{1000cm}$

8) Which of the following is NOT a conversion factor?

- a) 1 h = 3600 sec b) 12 months : 1 year **c) 1000 mm = 1 liter** d) $\frac{1min}{60sec}$

9) $\frac{1 \text{ km}}{\dots}$ is a conversion factor ?

a) 1 hour

b) 1000 m

c) 100 m

d) 10000mm

10) $\frac{60 \text{ km}}{1 \text{ h}} \times \dots = \frac{60000 \text{ m}}{1 \text{ h}}$

a) $\frac{1 \text{ km}}{1000 \text{ m}}$

b) $\frac{1000 \text{ km}}{1 \text{ m}}$

c) $\frac{1 \text{ m}}{1000 \text{ km}}$

d) $\frac{1000 \text{ m}}{1 \text{ km}}$

11) 120 m per min = cm per sec

a) 12000

b) 200

c) 720

d) 1200

12) 3.6 L $\times$ = 3600 mL

a) $\frac{1000 \text{ l}}{1 \text{ ml}}$

b) $\frac{100 \text{ ml}}{1 \text{ l}}$

c) $\frac{1000 \text{ ml}}{1 \text{ l}}$

d) $\frac{1 \text{ l}}{1000 \text{ ml}}$

13) $2\frac{1}{4}$ day = hours .

a) 54

b) 48

c) 2400

d) 24

14) 360 sec =h.

a) 60

b) 10

c) 3600

d) 0.1

15) The conversion factor to convert the speed from m per min to km per hr is

a) $\frac{60 \text{ min}}{1 \text{ h}}$

b) $\frac{1 \text{ km}}{1000 \text{ m}}$

c) $\frac{1 \text{ h}}{60 \text{ min}} \times \frac{1 \text{ km}}{1000 \text{ m}}$

d) $\frac{1 \text{ km}}{1000 \text{ m}} \times \frac{60 \text{ min}}{1 \text{ h}}$

16) 60 meters per hour = meter(s) per min.

a) 3600

b) 120

c) 360

d) 1

17) $\frac{1 \text{ m}}{\dots}$ is NOT a conversion factor

a) 100 cm

b) 1000 mm

c) 0.001 km

d) 60 min

18) 4.8 L $\times$ = 4800 ml

a) $\frac{100 \text{ ml}}{1 \text{ L}}$

b) $\frac{1000 \text{ L}}{1 \text{ ml}}$

c) $\frac{1000 \text{ ml}}{1 \text{ L}}$

d) $\frac{1 \text{ l}}{1000 \text{ ml}}$

19) If the price of one kilogram of orange is 15 L.E. then the price of 4 kg

a) $3\frac{3}{4}$

b) 30

c) 90

d) 60



20) $3 : 10 = \dots\dots\dots \%$

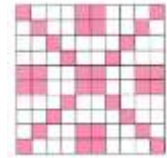
a) 30

b) 12

c) 25

d) 36

21) The opposite shaded area represents each of the following except



a) 36

b) 0.36

c) 36%

d) $\frac{9}{25}$

22) 50% of a number =

a) the whole number

b) half of a number

c) third of a number

d) quarter of number

23) Which value is NOT equivalent to 55% ?

a) $\frac{11}{20}$ b) $\frac{55}{100}$

c) 0.55

d) 0.055

24) $1\frac{1}{4} = \dots\dots\dots \%$

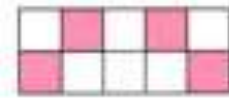
a) 25

b) 125

c) 75

d) 175

25) The opposite figure ,The percentage of the shaded part to whole =



a) 0.4

b) 40

c) 4

d) 60

26) $1 - 25\% = \dots\dots\dots$

a) $\frac{3}{4}$ b) $\frac{1}{4}$ c) $\frac{3}{8}$ d) $\frac{1}{8}$

27) If the percent of boys in a school is 62% then the percent of girls is ...%

a) 62

b) 42

c) 48

d) 38

28) Marwan ate 75% of a pizza, so he ate half the pizza.

a) exactly

b) less than

c) more than

d) otherwise

29) class has 24 students, 50% of them succeeded in the mathematics exam, then the number of students succeeded in the mathematics exam is

a) 24

b) 12

c) 18

d) 6



30) From the opposite table ,
the value of unknown =

Whole	Part	Percent
Unknown	120	40 %

- a) 30 b) 120 c) 480 d) 300

31) If the price of a watch is 350 L.E. , then 1% of its price is

- a) 3.5 b) 0.35 c) 35 d) 0.035

32) If $\frac{x}{5} = 20\%$, then $x =$

- a) 2 b) 1 c) 4 d) 5

33) 40% of a number = % of half of the same number.

- a) 20 b) 10 c) 80 d) 100

34) If the price of a TV set is 20,000 pounds ,
then 1% of its price = pounds .

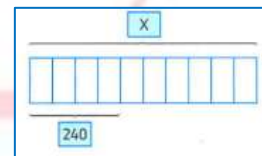
- a) 20 b) 200 c) 400 d) 2000

35) From the opposite double number
line $X =$



- a) 70 b) 210 c) 140 d) 420

36) From the opposite diagram
 $X =$



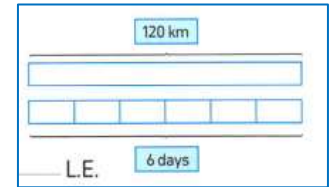
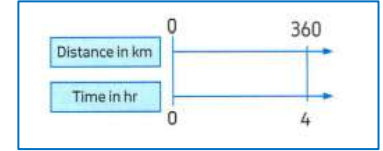
- a) 600 b) 400 c) 240 d) 2400

37) 25% of 1000 = 50% of

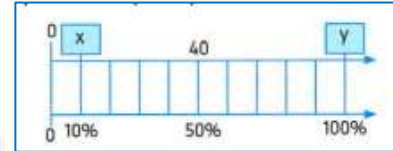
- a) 2000 b) 1500 c) 1250 d) 500

Q2 / Complete the following :-

- 1) From the opposite double number line , the unit rate is 90 km per hour
- 2) The unit rate from the opposite tape diagram is 20 km per day
- 3) 30,000 gm = 30 kg
- 4) 1,500 kg = 1,500,000 gm.
- 5) 2.5 hr = 150 min.
- 6) 60 meters per min = 1 meter(s) per sec.
- 7) 54 LE. for 9 kg , then the cost of 6 kg is 36 LE.
- 8) 48 km per hr = 800 meter per min
- 9) 120 km per hour = 2000 meter per min.
- 10) The percentage is a ratio its second term is 100.
- 11) $36\% + 24\% - 17\% = 43\%$
- 12) $12\% - 4\% = 8\%$
- 13) $1 - (39\% + 0.21) = 40\%$
- 14) $1 - \frac{3}{4} = 25\%$
- 15) $\frac{7}{3} \times \frac{3}{7} = 100\%$
- 16) $15\% - 0.15 = 0$
- 17) $225\% - 1\frac{1}{4} = 100\% = 1$
- 18) $0.35 + \frac{9}{20} = 80\%$
- 19) $15\% + 0.35 + \frac{1}{2} = 100\%$
- 20) $35\% \div \frac{7}{20} = 100\%$
- 21) If the ratio 3:4 is equivalent to $\frac{9}{x-1}$ then $x = 13$
- 22) 10 % of 50 kg = 5 kg



- 23) A store offers a discount 10% off on a shirt of price 300 LE. ,then the discount = 30 L.E.
- 24) $32\% = 1 - 68\%$
- 25) If the price of a ball is 120 LE.then 10% of its price is 12 LE.
- 26) $25\% \text{ of } 1,000 = 50\% \text{ of } 500$
- 27) From the opposite double number line ,
the value of $x + y = 88$
- 28) $15\% \text{ of } 240 \text{ kg} = 36 \text{ kg}$
- 29) $2 \text{ to } 5 = 40\%$
- 30) $20\% \text{ of } 600 \text{ L.E.} = 120 \text{ L.E.}$
- 31) $20\% \text{ of a number} = 50\% \text{ of half of the same number.}$
- 32) $45\% \text{ of a kilometer} = 450 \text{ m}$



Q3 / Answer the following :-

1) Which is the longest 1.34 m or 200 cm ?

200

2) Eman covered $\frac{3}{4}$ km in 6 min. What is the distance covered in 2 min ?

$\frac{1}{4}$ km

3) Is (490 pounds per 7 kg of apples) a unit rate or not?

Not

4) Two machines produce cloth ,the first one produces 365 meters in 5 hours and the second produces 480 meters in 6 hours. Which machine is better ?

Second is better

5) On most summer days, camels drink about 20,000 milliliters of water. How many liters of water is that ? Show your calculations

20 L

6) Assuming you stored 30 boxes of goods, which is 50% of the boxes, what is the total number of boxes?

60 boxes

7) Youssef bought a car for 70,000 pounds , he paid 25% of its price. How much money did he pay ?

17500 LE.



- 8) The price of a mobile phone before a discount is 3,000 pounds. if the discount is 10 %, What is its price after the discount ?

2700 LE.

- 9) If a man deposited 20,000 pounds in a bank with interest 20% per year. Find the total amount which he gets at the end of one year.

24,000 LE.

- 10) On the sale a shop offers a discount 20% if the price of an article is 1,600 pounds. Find its price after discount.

1,280 LE.

- 11) A piece of cloth of 10 meters long , was put in water. it shrunk by 4% What is the length after shrinking ?

9.6 m

- 12) 20% of the students in a class are wearing black There are 40 students in the class. How many students are wearing black ?

8 students

- 13) 60 Children from school went to a trip and this is 40% of all children in the school. How many all children in the school ?

150 children

- 14) Assuming you stored 20 boxes of goods, which is 80% of the boxes, what is the total number of boxes?

25 boxes

- 15) Select 10% and then use it as a reference percentage to find the following percentages: 30% of 900 pounds?

$$10\% \times 900 = 90$$

$$90 \times 3 = 270 \text{ pounds.}$$

- 16) A shirt that costs 1200 EGP has a 40% discount, calculate the value of the amount saved and the price of the shirt after the discount?

$$\text{Discount (saved money)} = 40\% \times 1200 = 480 \text{ pounds.}$$

$$\text{Price after} = 1200 - 480 = 720 \text{ pounds.}$$

- 17) Find the value of X

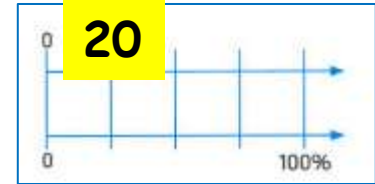
a) $\frac{x}{8} = \frac{10}{20}$
 $x = 4$

b) $\frac{x+1}{10} = 30\%$
 $x = 2$

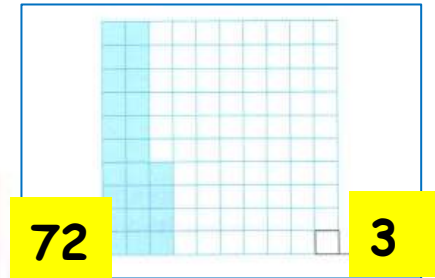
c) $\frac{2}{x+8} = 5\%$
 $x = 32$

18) Find the value of each of the following by using the given model .

a) 25% of 80 = 20

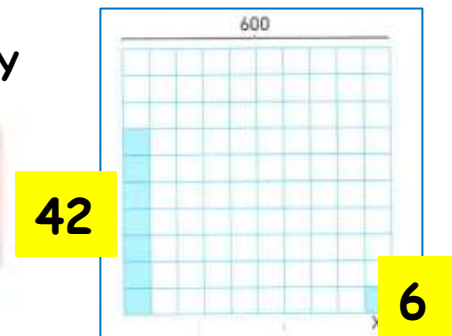


b) 24% of a number is 72 , number = 300

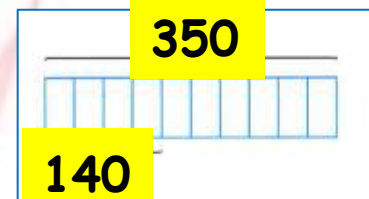


19) From the opposite 10 x 10 grid , Find: X + Y

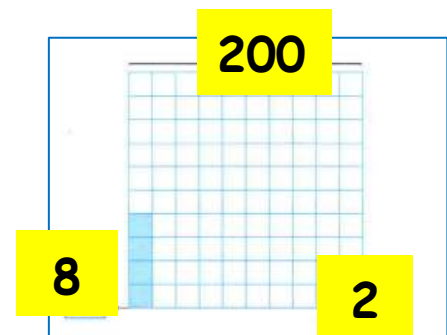
42 + 6 = 48



20) If 40% of a number is 140 find ,
that number by using the opposite tape
diagram . number is 350



21) Find the value of 4% of 200 by using the
opposite 10 x 10 grid. = 8



- 22) We ate 5 out of 10 bananas.
What percentage of the bananas did we eat? Determine the part, whole, and percentage of this question.

The total	The part	Percentage
10	5	50%

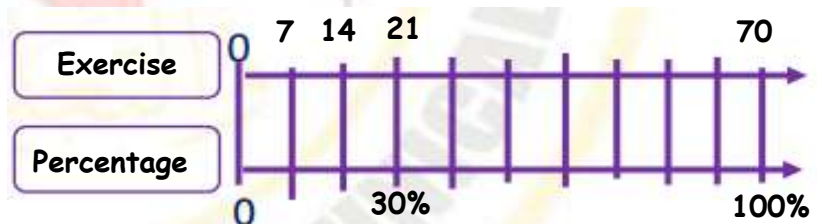
- 23) 300 out of the total number of students in the school have pets, which is 25% of the total number of students in the school, how many students are in the school? From this question , Write the values that represent the part, the whole, and the percentage.

The total	The part	Percentage
1200	300	25%

- 24) Use the double number line to determine the percentage of time Farida spent practicing swimming on Monday.

Percentage = 30%

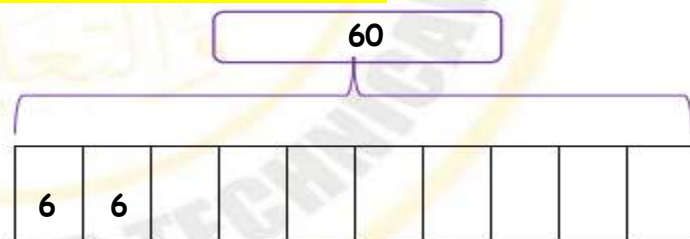
Walid's exercise schedule	
	Swimming (minutes)
Weekly exercise	70
Exercise on Mondays	21



- 25) Use the tape diagram to determine the percentage of time Izz spent practicing swimming on Sunday.

Percentage = 20%

Izz's exercise schedule	
	Swimming (minutes)
Weekly exercise	60
Exercise on Sundays	12



12 out of 60
= 20%

Unit 11

Q1 Choose the correct answer :-

1) Point both of whose coordinates are negative will Lie in

- a) 1st quadrant b) 2nd quadrant c) 3rd quadrant d) 4th quadrant

2) If the y-coordinate of a point is zero, then this point always lies

- a) 1st quadrant b) 2nd quadrant c) on Y-axis d) on X-axis

3) Point (0 , -7) lies on

- a) 1st quadrant b) 4th quadrant c) on Y-axis d) on X-axis

4) Point (-3 , 4) lies in

- a) 1st quadrant b) 2nd quadrant c) 3rd quadrant d) 4th quadrant

5) If the x-coordinate of a point is zero, then this point Lies

- a) 1st quadrant b) 2nd quadrant c) on Y-axis d) on X-axis

6) Which point lies in the third quadrant ?

- a) (0 , -5) b) (5 , -11) c) (-5 , 0) d) (-5 , -11)

7) Which of the following points lies on the y-axis ?

- a) (-1 , 0) b) (0 , -1) c) (5 , 0) d) (3 , 3)

8) The points (-5 , 2) and (2 , -5) lie in the

- a) 2nd and 4th quadrants, respectively b) Same quadrant
c) 2nd and 3rd quadrants, respectively d) 4th and 3rd quadrants, respectively

9) The image of the point (2 , -5) by reflection across the x-axis is the point

- a) (2 , -5) b) (-2 , 5) c) (2 , 5) d) (-2 , -5)

10) The image of the point (4 , 0) by reflection across the y-axis is the point

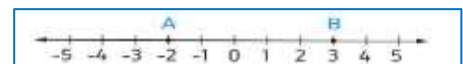
- a) (-4 , 0) b) (0 , -4) c) (4 , 0) d) (0 , 4)

11) If the point A (- 2 , 3) moved 2 units to the right then 3 units downward, then A will be

- a) (-2 , 0) b) (0 , 1) c) (0 , 0) d) (1 , 1)

12) The distance between a and b is

- a) 1 units b) 4 units c) 5 units d) 6 units



13) If we have the points A (5 , -5) and B (5,4), then the length of AB =

- a) 10 units b) 4 units c) 5 units d) 9 units

14) If the two points A (1 , 2) and B (5,4) are two vertices of a right-angled triangle ABC , then the point C could be

- a) { 1 , 4 } b) (1 , 3) c) (3 , 1) d) (4 , 1)

15) If A (1 , 3) and C (4 , 1) and $AB \perp BC$, then the point B is

- a) (1 , 4) b) { 1 , 1 } c) (3 , 1) d) (4 , 2)

16) The point (-2,3) lies in the

- a) 1st quadrant b) 2nd quadrant c) 3rd quadrant d) 4th quadrant

17) The distance between the point (2 , 3) and its image by reflection across y-axis = units .

- a) 3 b) 2 c) 6 d) 4

18) The point at the position (-1 , 3) has moved 2 units to the right and 3 units upwards then its new position is

- a) (2 , 5) b) (0 , 5) c) (0 , 6) d) { 1 , 6 }

19) In the opposite figure , the distance between the two points A and B = units .

- a) 20 b) 210 c) 190 d) 400



Q2 Complete the following :-

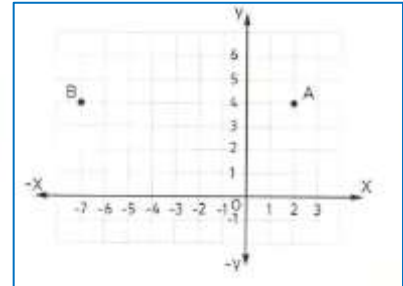
- 1) If the two points A(-2,2) and B (3,a) are on the same horizontal line in the coordinate plane, then $a = 2$
- 2) The image of the point (-4,1) by reflection in the Y-axis is the point (4,1)
- 3) If the point (-1, 4) is the image of the point (a, b) by reflection in the Y-axis, then $a+b = 5$
- 4) The distance between the point (0, -4) and the origin $O = 4$ units .
- 5) The distance between C (3,-4) and D (3,-2) is 2 units
- 6) The point (4,3) lies in the first quadrant
- 7) The point $(-2\frac{1}{4}, 0)$ lies on the X-axis.
- 8) In the opposite figure The distance between A and B is 9 units .
- 9) The distance between the two points (3, -4) and (3, 7) is 11 units .
- 10) The distance between A (2, y) and B (2, -1) is 6 units and the point A lies in first quadrant, then $y = 5$
- 11) The distance between the point (1, 2) and its image by reflection across X-axis = 4 units .
- 12) The point M is located 3 units to the right and 5 units up from the origin point, then the ordered pair that represents the point M is (3,5)
- 13) The point (4, 2) is 4 units from the y-axis



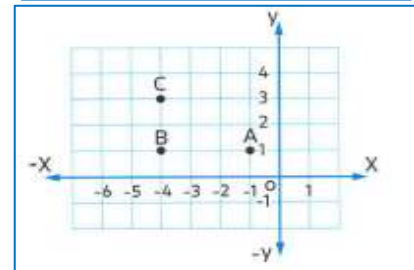
- 14) In the opposite figure: if $AB = 30$ units, then $X = 19.5$



- 15) In the opposite coordinate plane ,
the length of $AB = 9$ units.



- 16) From the opposite coordinate plane ,
if $ABCD$ is a rectangle ,then the coordinate of
the point D is $(-1, 3)$

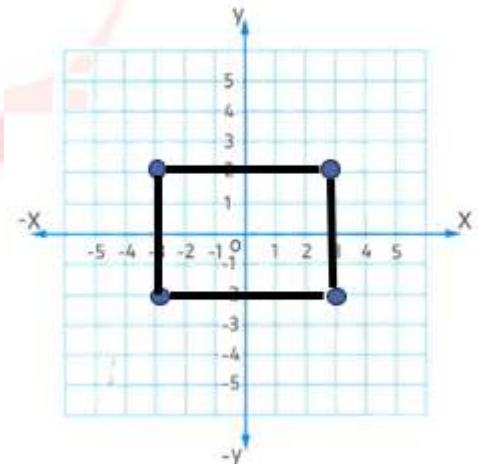


- 17) Plot the following points on the opposite
grid :-

$A(3, 2)$, $B(-3, 2)$, $C(-3, -2)$ and $D(3, -2)$

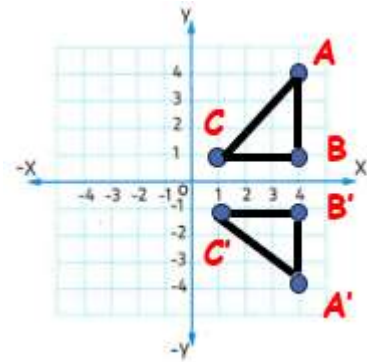
b) Now, connect them.

c) Identify the shape. **rectangle**



18) In the opposite figure :

Graph the points A (4,4), B (4,1) and C (1,1) join them to draw the triangle ABC and find the images of each point by reflection across the X-axis



Unit 12

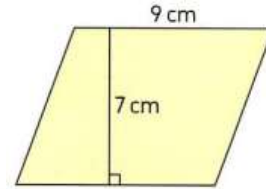
Q1 Choose the correct answer :-1) Area of a parallelogram =cm²

a) 63

b) 16

c) 32

d) 79



2) The corresponding base in the parallelogram to the height DE is

a) AB

b) BC

c) CE

d) CD

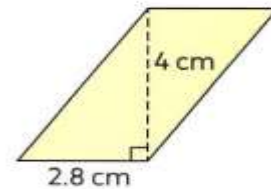
3) Area of opposite parallelogram = m²

a) 6.8

b) 11.2

c) 13.6

d) 24.8

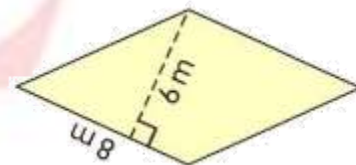
4) Area of opposite rhombus = m²

a) 14

b) 48

c) 24

d) 28

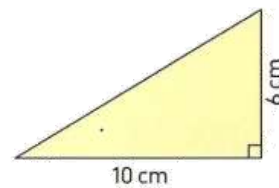
5) Area of a triangle =cm²

a) 60

b) 16

c) 30

d) 15

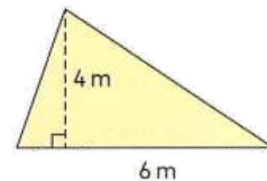
6) Area of a triangle =m²

a) 24

b) 12

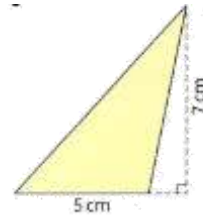
c) 10

d) 46



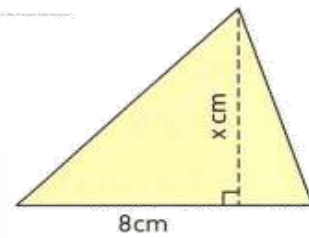
7) Area of a triangle =cm²

- a) 35 b) 21
c) 17.5 d) 79



8) The value of X =

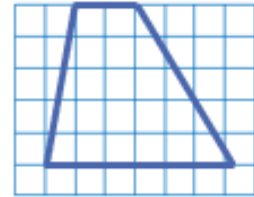
- a) 3 b) 12
c) 6 d) 14



Area = 24 cm²

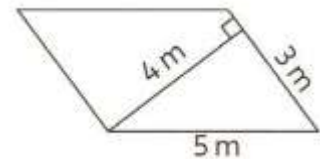
9) Area of a trapezium = square units

- a) 18 b) 20
c) 24 d) 30



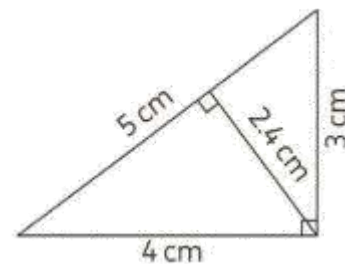
10) Area of a parallelogram = square units

- a) 20 b) 12
c) 15 d) 8



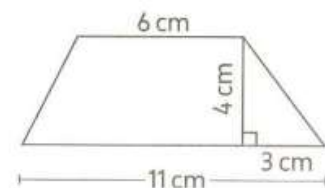
11) Which expression represents the area of the drawn triangle ?

- a) $\frac{1}{2} \times 3 \times 5$ b) $\frac{1}{2} \times 2.4 \times 4$
c) $\frac{1}{2} \times 3 \times 4$ d) $\frac{1}{2} \times 4 \times 5$



12) The area of opposite trapezium is cm²

- a) 34 b) 30
c) 55 d) 40



13) A parallelogram with area 24 cm^2 and base length 6 cm , then its corresponding height =

- a) 3 b) 4 c) 5 d) 6

14) Area of a parallelogram =

- a) $b + h$ b) $b \div h$ c) $b \times h$ d) $(b + h) \times 2$

15) The height of a rhombus whose area is 10 cm^2 and side length 50 mm is cm

- a) 50 b) 20 c) 2 d) 500

16) Area of a rhombus whose side length is 2.4 cm and its height is 2 cm is cm^2

- a) 4.8 b) 5.6 c) 8 d) 10.2

17) Area of triangle =

- a) $\frac{1}{2} + b + h$ b) $\frac{1}{2} \times (b + h)$ c) $\frac{1}{2} \times b \times h$ d) $2 \times b \times h$

18) If ABC is a right-angled triangle at B , and $BC = 10 \text{ cm}$, $AB = 8 \text{ cm}$ then its area = cm^2

- a) 40 b) 80 c) 18 d) 9

19) If the area of a triangle is 30.25 m^2 and its base length is 5.5 m , then its corresponding height =m

- a) 5.5 b) 11 c) 2.75 d) 24.75

20) If the perimeter of an equilateral triangle is 27 cm and its height is 7.8 cm , then its area = cm^2

- a) 105.3 b) 210.6 c) 70.2 d) 35.1

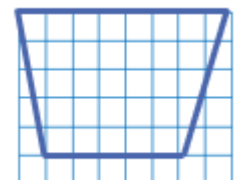
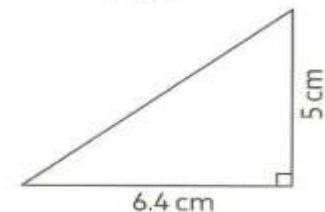
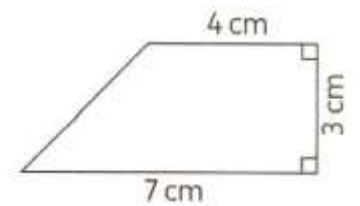
21) A rhombus of side length 14 cm and the ratio between its height and its side length is $5 : 7$, then the area of the rhombus is

- a) 35 cm^2 b) 70 cm^2 c) 100 cm^2 d) 140 cm^2



Q2 Complete the following :-

- 1) A parallelogram of area 3.6 m^2 and a base length 0.9 m , then its corresponding height is 4 m
- 2) If a base length of a parallelogram is 10 m and its corresponding height is 3 m less than it , then the area of the parallelogram is 70 cm^2
- 3) If the two dimensions of a parallelogram are 7 cm and 4 cm and its smaller height is 6 cm , then its area is 42 cm^2
- 4) The area of the rhombus whose perimeter is 20 cm and its height is 3.4 cm is 17 cm^2
- 5) The area of opposite trapezium is 16.5 cm^2
- 6) The area of opposite triangle is 16 cm^2
- 7) The area of opposite trapezium is 32.5 cm^2

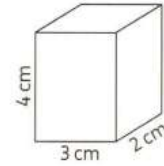


Unit 13

Q1 Choose the correct answer :-

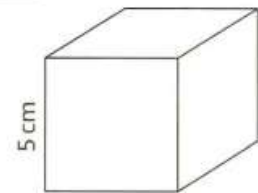
1) The surface area of the following cuboid =cm²

- a) 12 **b) 52**
c) 24 d) 104



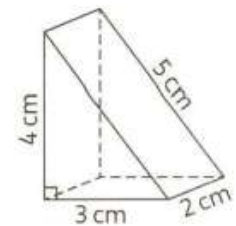
2) The surface area of the following cube =cm²

- a) 25 b) 75
c) 50 **d) 150**



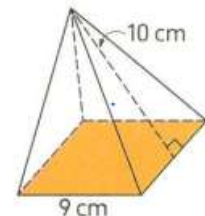
3) The surface area of the triangular prism =cm²

- a) 24 b) 48
c) 38 d) 56



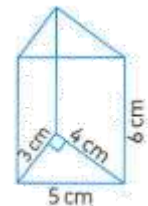
4) The surface area of the square pyramid =cm²

- a) 148 b) 240
c) 156 **d) 261**



5) The surface area of the following triangular prism =cm²

- a) 72 **b) 84**
c) 42 d) 60



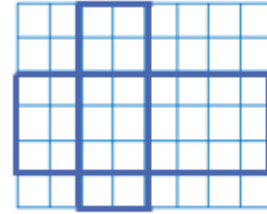
6) The surface area of the following cuboid =cm²

a) 30

b) 16

c) 32

d) 24



7) The side length of the cube which its surface area equals 96 m² equals

a) 5m

b) 3m

c) 2m

d) 4m

8) Which of following expressions represents the surface area of a cube with side length w ?

a) w²b) 6w²c) 6w³d) 2w + 4w²

9) If the three dimensions of a cuboid are doubled, then the ratio between the new volume to the original volume of the cuboid is

a) 8 : 1

b) 1 : 8

c) 1 : 4

d) 4 : 1

10) The perimeter of one face of a cube is 28 cm, then the surface area of the cube is

a) 168

b) 244

c) 294

d) 314

Q2 Complete the following :-

1) The surface area of a cuboid that has length of 6 cm , width of 3 cm , height of 9 cm is 198 cm²

2) The surface area of a cube of side length 3.5 m is 73.5 cm²

3) The surface area of a cuboid that has a square base of side length 5 cm, and a height 8 cm is 210 cm²

4) The volume of the cuboid = base area × height

5) The volume of the cuboid = length × width × height



- 6) If one dimension of a cuboid is doubled , then the ratio of the new volume to the original volume in the simplest form is 4 : 1
- 7) A cuboid of volume 200 cm^3 , if its length is doubled , then the new volume of the cuboid is 400 cm^2
- 8) A gift box in the shape of a cube of side length 30 cm, then its surface area is 5400 cm^2
- 9) A cuboid of square base of side length 5 cm, and its height is 12 cm , then its volume is 300 cm^3
- 10) Which has the greater surface area : a cube of side length 10 cm or a cuboid of Length 10 cm, width 9 cm and high 5 cm

Area of cube = 600 cm^2

Area of cuboid = 370 cm^2

cube is the greatest.

General exercises on the 2nd termQ1: Choose the correct answer

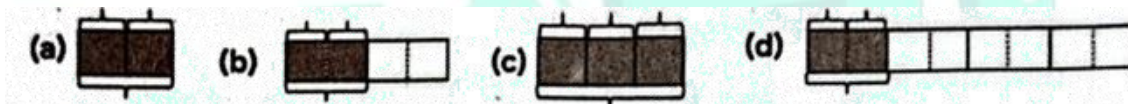
1) The reciprocal of the fraction $\frac{2}{5}$ is.....

- (a) 5 (b) $\frac{5}{2}$ (c) $\frac{1}{5}$ (d) $\frac{1}{2}$

2) If $\frac{2}{7}$ of a number is 5, then this number is.....

- (a) 5 (b) 7 (c) 35 (d) 17.5

3) The model that represents the division problem: $1 \div \frac{1}{2}$ is.....



4) The quotient of $(\frac{3}{4} \div 2)$ is

- (a) $\frac{3}{8}$ (b) $2\frac{2}{3}$ (c) 4 (d) $2\frac{3}{4}$

5) The number of equal groups of $\frac{1}{4}$ in the fraction $\frac{6}{8}$ is groups.

- (a) 2 (b) 3 (c) 4 (d) 5

6) The least common denominator (LCD) for the two fractions $\frac{1}{4}$ and $\frac{2}{9}$ is

- (a) 24 (b) 16 (c) 36 (d) 18

7) The reciprocal of the fraction $\frac{9}{18}$ in its simplest form is

- (a) $\frac{1}{9}$ (b) $\frac{1}{18}$ (c) $\frac{1}{2}$ (d) 2

8) The multiplication operation (2.3×1.5) is equivalent to the numerical expression

- (a) $\frac{15}{100} \times \frac{23}{100}$ (b) $\frac{15}{10} \times \frac{23}{10}$
 (c) $\frac{15}{100} \times \frac{23}{10}$ (d) $\frac{15}{10} \times \frac{23}{100}$

9) The next ratio in the following pattern: $:\frac{3}{5}, \frac{6}{10}$ is

- (a) $\frac{1}{6}$ (b) $\frac{7}{15}$ (c) $\frac{9}{15}$ (d) $\frac{1}{5}$

10) If $\frac{18}{27}$ and $\frac{A}{3}$ are equivalent ratios, then the value of A is

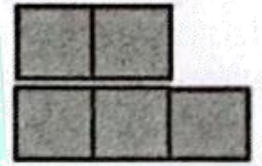
- (a) 4 (b) 2 (c) 8 (d) 9

11) From the opposite model, if Nada's age is 10 years, then Amir's age is years

- (a) 12 (b) 18 (c) 15 (d) 9

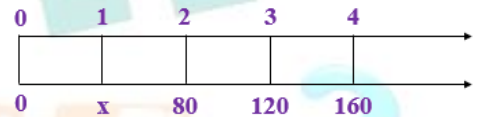
Nada's age

Amir's age



12) From the opposite double number line, the value of x is.....

- (a) 40 (b) 30
(c) 50 (d) 45



13) The sentence that expresses a unit rate among the following is.....

- (a) 3 pens for every student
(b) 6 pieces of candy for every 3 students
(c) 6 km for every 3 minutes
(d) 4 loaves of bread for every 4 students

14) The conversion factor used to convert from years to months is...

- (a) $\frac{1 \text{ year}}{10 \text{ months}}$ (b) $\frac{12 \text{ months}}{1 \text{ year}}$ (c) $\frac{1 \text{ year}}{1 \text{ month}}$ (d) $\frac{1 \text{ month}}{12 \text{ years}}$

15) The ratio that compares two equal quantities expressed in different units within the same measurement system is called

- (a) conversion factor (b) place value
(c) unit rate (d) equivalent ratios

16) $\frac{7}{10} = \dots\dots\dots\%$

- (a) 7% (b) 10% (c) 17% (d) 70%

17) 65 % =

- (a) 0.5 (b) 0.65 (c) 0. (d) 0.85

18) In a class of 50 students, 10% of them like swimming. The number of students who like swimming is. students.

- (a) 5 (b) 10 (c) 40 (d) 60

19) If 18% of a number is 36, then the number is.....

- (a) 100 (b) 200 (c) 300 (d) 400

20) The percentage that represents 20 pounds out of 400 pounds is....

- (a) 5 % (b) 10 % (c) 15 % (d) 20 %

21) 1% of 200 pounds is equal to.....pounds.

- (a) 0.02 (b) 0.2 (c) 2 (d) 20

22) The x-coordinate of the origin is.....

- (a) (0 , 0) (b) 1 (c) 0 (d) (0, 1)

23) The Pointlies on the x-axis..

- (a) (2 , 0) (b) (1 , 1) (c) (2 , 3) (d) (0 , 2)

24) The point (6, -5) lies in the quadrant.

- (a) First (b) Second (c) Third (d) fourth

25) All of the following points lie on the fourth quadrant except

- (a) (3 , -7) (b) (2 , -5) (c) (-1 , -4) (d) (6 , -8)

26) Reflection of the point $(-4, 7)$ across x-axis produces the point

- (a) $(-4, -7)$ (b) $(4, -7)$ (c) $(-7, -4)$ (d) $(4, 7)$

27) Reflection of the point in the x-axis produces the point $(-4, 7)$

- (a) $(-4, -7)$ (b) $(4, -7)$ (c) $(-7, -4)$ (d) $(4, 7)$

28) If the point $(S, -3)$ lies in the third quadrant, then the possible value of $S = \dots$

- (a) 4 (b) -5 (c) 0 (d) 2

29) The point $(4, 0)$ lies on x-axis, then its reflection in y-axis lies on..

- (a) X – axis (b) Y – axis
(c) Second quadrant (d) fourth quadrant

30) The following points lies in the fourth quadrant except

- (a) $(2, -1.5)$ (b) $(1.5, -1.5)$
(c) $(-2.25, -2.5)$ (d) $(2, -2.5)$

31) The pointlies on x – axis .

- (a) $(0, -2.5)$ (b) $(-2.5, 0)$ (c) $(-1.5, -2.5)$ (d) $(2, -2.5)$

32) Reflection of the point $(-1.5, 2.5)$ in x-axis produces the point....

- (a) $(-1.5, 2.5)$ (b) $(1.5, -2.5)$
(c) $(-1.5, -2.5)$ (d) $(1.5, 2.5)$

33) Reflection of the point $(2\frac{1}{4}, \frac{1}{2})$ in x-axis produces the point

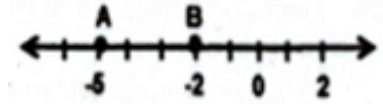
- (a) $(2\frac{1}{4}, \frac{1}{2})$ (b) $(2\frac{1}{4}, -\frac{1}{2})$
(c) $(\frac{1}{4}, -2\frac{1}{2})$ (d) $(\frac{1}{4}, 2\frac{1}{2})$

34) The distance between the two number 4 and -5 on the number line is units.

- (a) 1 (b) -1 (c) 9 (d) 1

35) The distance between the two points, A and B on the following line is units.

- (a) -3 (b) 7 (c) 3 (d) 7



36) The points (2,3), (2,-3) , (4,-3), (4,3) can form a

- (a) Square (b) Rectangle
(c) Trapezium (d) Right angled triangle

37) The point can be enclosed to form a rectangle using the points (3,-6),(4,1),(4,-6) is.....

- (a) (3 ,1) (b) (1 , -6) (c) (4 , -6) (d) (1 , 3)

38) A triangle has an area 30 cm^2 and a height 10 cm, The length of its base iscm

- (a) 6 (b) 300 (c) 0.3 (d) 150

39) Area of A right-angled triangle is

- (a) $A = b \times h$ (b) $A = \frac{1}{2} \times b \times h$
(c) $A = 2 \times b \times h$ (d) $A = b \div h$

40) Number of Altitudes of the right-angled triangle is.....

- (a) 1 (b) 2 (c) 0 (d) 3

41) Which of the following represents the area of a triangle?

- (a) 28 cm (b) 28 cm^2 (c) 28 cm^3 (d) 22.8 cm

42) Altitudes of an obtuse triangle intersect at a single point which liesthe triangle

- (a) acute (b) on (c) inside (d) Outside

43) A square pyramid its base area 30 cm^2 and the area of one of its faces is 10 cm^2 . then its surface area =..... cm^2 .

- (a) 40 (b) 70 (c) 55 (d) 100

44) A solid that consists of two congruent bases in the shape of a triangle and 3 rectangular faces is called a.....

- (a) Pyramid (b) Cube (c) Prism (d) Cuboid

45) A cuboid has dimensions 4 cm, 5 cm, and 5 cm. Its volume equals cm^3

- (a) 100 (b) 25 (c) 30 (d) 50

46) If the volume of a cuboid is 180 cm^3 and its height is 10 cm, then its base area is cm^2 .

- (a) 6 (b) 18 (c) 30 (d) 15

47) A cuboid has a volume 400 cm^3 , a base length 10 cm, and a width 5 cm. Its height is cm

- (a) 8 (b) 20 (c) 50 (d) 80

48) If we doubled the width of a cuboid is three times, its volume will be multiplied by..... times

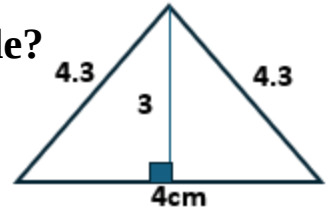
- (a) Two (b) Three (c) Six (d) Nine

49) A cuboid has a volume 50 cm^3 . Find its volume when two of its dimensions are doubled..... cm^3

- (a) 50 (b) 100 (c) 150 (d) 200

50) Which of the following represents the area of the given triangle?

- (a) 28 cm (b) 6 cm²
 (c) 6 cm³ (d) 22.8 cm



51) Altitudes of the obtuse angled triangle intersect at a point the triangle.

- (a) acute (b) on (c) inside (d) outside

Second: answer the following:

1) Find the quotient of the division ($2 \div \frac{3}{5}$) using the bar models.

2) Find the quotient of the division ($\frac{1}{4} \div \frac{2}{8}$) using the bar models.

3) Write the multiplication problem used to check the solution of the problem:

($5 \div \frac{1}{5} = 25$)

4) 4 friends share $\frac{4}{5}$ of a pizza. Find the share of each of them using bar models.

.....

5) Hajar wants to prepare a candy recipe. The recipe requires $\frac{2}{3}$ cup of milk. Hajar

has cup $\frac{4}{9}$ of milk. Does she have enough milk to make the whole recipe? What part of the candy recipe can she prepare with the amount of milk she has?

.....

.....

6) Find the result in the simplest form using multiplication

a) $\frac{3}{15} \div \frac{6}{5} = \dots$

b) $\frac{9}{10} \div \frac{3}{5} = \dots\dots$

c) $\frac{3}{5} \div \frac{1}{10} = \dots\dots$

7) Find the value of n in each of the following:

a) $n \times \frac{5}{8} = \frac{1}{16}$

b) $\frac{5}{6} \div n = \frac{5}{12}$

8) Find the result of multiplying each of the following using the standard algorithm:

a) $2.31 \times 0.23 = \dots\dots\dots$

b) $12 \times 3.6 = \dots\dots\dots$

9) Find the result of multiplying using conversion to common fractions or improper

a) $5.3 \times 4.2 = \dots\dots\dots$

b) $4.2 \times 1.8 = \dots\dots\dots$

c) $1.7 \times 0.13 = \dots\dots\dots$

10) Find the quotient of the division:

a) $3.2 \div 0.32 = \dots\dots\dots$

b) $3.6 \div 0.18 = \dots\dots\dots$

11) A class has 35 boys and 15 girls. Write the required ratio in its simplest form using two different | formats:

a) Ratio of the number of boys to the number of girls.....

b) Ratio of the number of girls to the number of students in the class.....

c) Ratio of the number of boys to the number of students in the class.....

12) Put the following ratios in their simplest form:

(a) $\frac{9}{18} = \frac{\dots}{\dots}$

(b) $\frac{8}{32} = \frac{\dots}{\dots}$

(c) $\frac{6}{18} = \frac{\dots}{\dots}$

13) Complete the following table (keep the given ratio):

Number of yellow lamps	Number of red lamps	Total number of lamps
5	6	
.....		

Number of yellow balls	Number of red balls	Total number of balls
10	9	
.....		
.....		
.....		

14) If you know that Ibrahim solves 4 problems in 7 minutes at a constant rate, what is the number of minutes Ibrahim takes to solve 12 problems? And what is the number of problems Ibrahim solved in 49 minutes?

15) Sara needs 2 cups of flour for every 1 cup of milk to make a cake. Calculate the number of cups of milk required if she uses 4 cups of flour. And calculate the number cups of flour that can be used if she has 3 cups of milk?

16) Are the two ratios $\frac{12}{24}$ and $\frac{7}{14}$ equivalent? Explain your answer?

.....

17) A candy factory produces 150 pieces of candy per hour. Calculate the number of candy pieces the factory produces in 8 hours.

18) 540 km for every 5 hours. Find the unit rate using the double number line.

19) Determine the best price for purchase in each of the following using the unit rate:

a) 3 sandwiches for 90 pounds or 5 sandwiches for 250 pounds.

.....
.....

b) 10 notebooks for 50 pounds or 9 notebooks for 36 pounds.

.....
.....

20) Amal takes 15.5 minutes to make a pizza. Calculate the time Amal takes in seconds.

.....

21) If Hazem's height is 1.4 meters, calculate his height in centimeters.

.....

22) A class has 40 students. 60% of them prefer football. What is the number of students who prefer football?

23) What is the value of 40% of 300 pounds?

.....

24) Fatima obtained 50 marks out of 80 marks in a mathematics test. Calculate the percentage of the mark Fatima obtained.

25) Mohamed distributed 30 pieces of cake to his friends. This number represents 80% of the total number of cake pieces Mohamed had. What is the total number of cake pieces Mohamed had?

26) Write the following percentages as a decimal fraction:

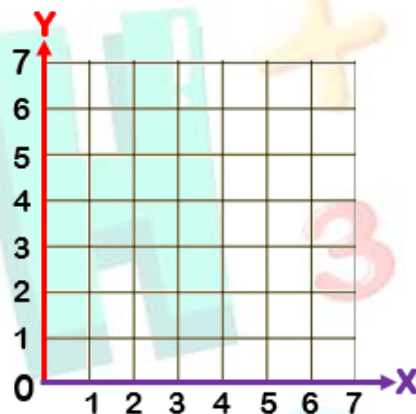
27%

9 %

31 %

27) Using the adjacent coordinate plane, represent the following points:

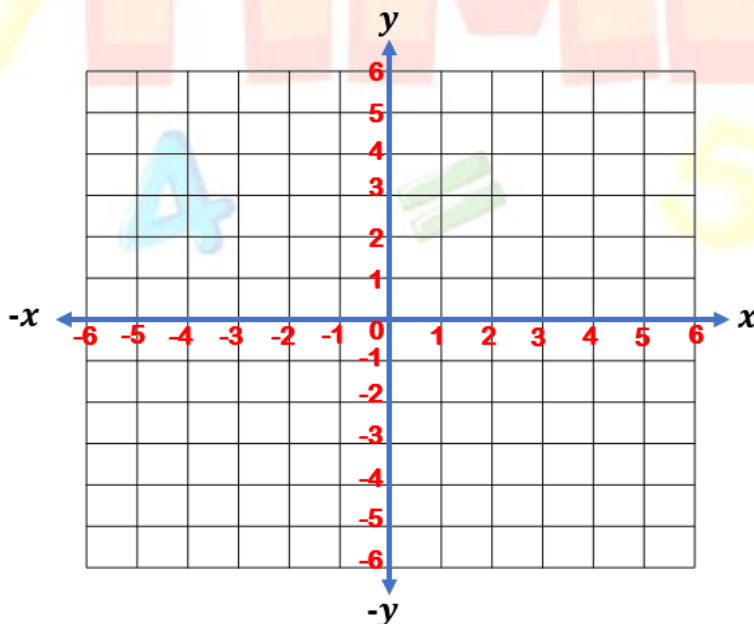
A (0 , 5) , B (2 , 4) , C (4 , 2)



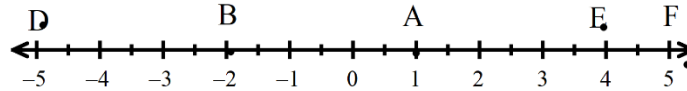
28) Determine the following points on the coordinate plane:

A (1.5 , 1.5) , B (-1.75 , -2.5) , C (3.5 , 0) , N (-1.75 , 2.5)

Then, identify the points that represent a reflection of each other or of themselves across the x-axis.



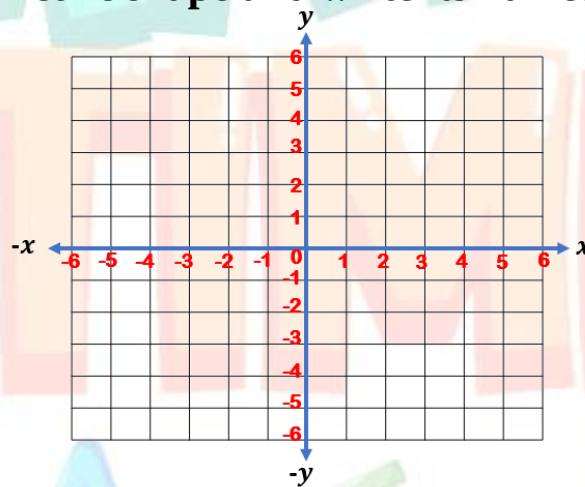
29) Observe the following number line and then find:



- 1) The distance between points A and E
 - 2) The distance between points E and F
 - 3) The distance between points A and B
 - 4) The distance between points E and D
 - 5) The distance between points A and D
 - 6) The distance between points B and F
- 30) Determine the following points on the coordinate:

$(-3, -4)$, $(2, -4)$, $(2, 0)$, $(-3, 0)$

Connect them to get a geometric shape and write its name.....



- 31) A piece of land is in the shape of a parallelogram with a base length 18 m and a corresponding height 18 m. A house was built inside it in the shape of a rhombus with a side length 9 m and a height 8 m. Find the area of the remaining part of the land

.....

.....

32) A parallelogram has two bases of lengths 16 cm and 12 cm and its greatest height is 6 cm. Find its area and the smaller height.

.....

33) A triangle has a base length 4.2 cm and a corresponding height is 2.6 cm. Find its area.....

34) A triangle has an area of 32 cm^2 and a height of 8 cm. Find the length of its base.

.....

35) A triangle has a base length of 24 cm and a height of 7 cm. Find its area.

.....

36) A triangle half of its height is 3 cm, and its base length is 8 cm. Find its area.

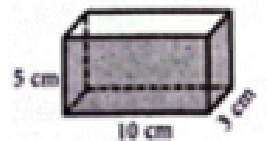
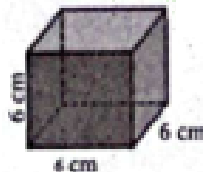
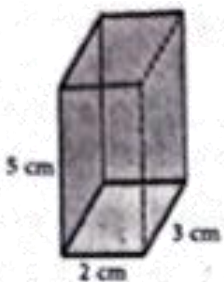
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37) Which is smaller in area: A triangle with a base length of 40 cm and a corresponding height of 20 cm, OR a triangle with a base length of 38 cm and a corresponding height of 24 cm?

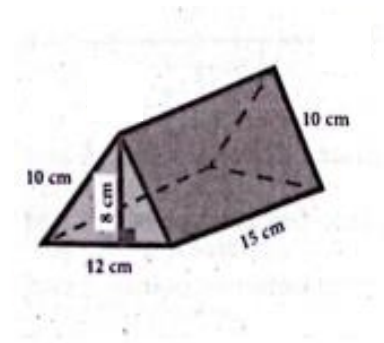
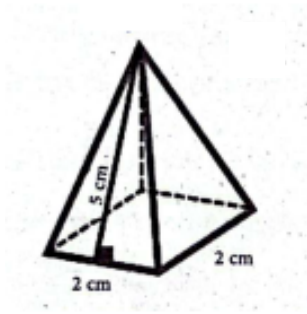
.....

.....

38) Calculate the surface area of the following solids:



39) Calculate the surface area of the following solids:



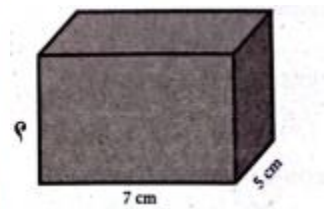
40) A cuboid has three dimensions: 6 cm, 5 cm, and 4 cm. Calculate its volume.

.....

41) If the volume of the given cuboid is 350 cm^3 .

Find the unknown dimension.

.....



42) A cuboid has dimensions: 1 m, 2 m and 2.5 m. Find its volume if its length is doubled?

.....

43) A cuboid has dimensions: 4 cm, 1.5 cm and 5 cm. Find its volume if its three dimensions are doubled?

.....

General exercises on the 2nd termQ1: Choose the correct answer

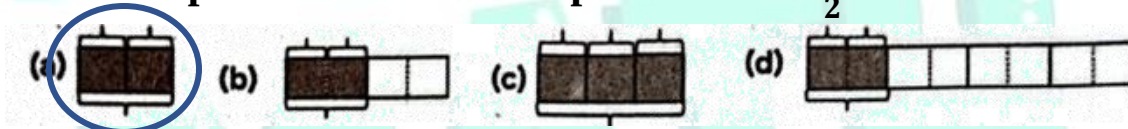
1) The reciprocal of the fraction $\frac{2}{5}$ is.....

- (a) 5 (b) $\frac{5}{2}$ (c) $\frac{1}{5}$ (d) $\frac{1}{2}$

2) If $\frac{2}{7}$ of a number is 5, then this number is.....

- (a) 5 (b) 7 (c) 35 (d) 17.5

3) The model that represents the division problem: $1 \div \frac{1}{2}$ is.....



4) The quotient of $(\frac{3}{4} \div 2)$ is

- (a) $\frac{3}{8}$ (b) $2\frac{2}{3}$ (c) 4 (d) $2\frac{3}{4}$

5) The number of equal groups of $\frac{1}{4}$ in the fraction $\frac{6}{8}$ is groups.

- (a) 2 (b) 3 (c) 4 (d) 5

6) The least common denominator (LCD) for the two fractions $\frac{1}{4}$ and $\frac{2}{9}$ is

- (a) 24 (b) 16 (c) 36 (d) 18

7) The reciprocal of the fraction $\frac{9}{18}$ in its simplest form is

- (a) $\frac{1}{9}$ (b) $\frac{1}{18}$ (c) $\frac{1}{2}$ (d) 2

8) The multiplication operation (2.3×1.5) is equivalent to the numerical expression

- (a) $\frac{15}{100} \times \frac{23}{100}$ (b) $\frac{15}{10} \times \frac{23}{10}$
 (c) $\frac{15}{100} \times \frac{23}{10}$ (d) $\frac{15}{10} \times \frac{23}{100}$

9) The next ratio in the following pattern: $:\frac{3}{5}$, $\frac{6}{10}$ is

- (a) $\frac{1}{6}$ (b) $\frac{7}{15}$ (c) $\frac{9}{15}$ (d) $\frac{1}{5}$

10) If $\frac{18}{27}$ and $\frac{A}{3}$ are equivalent ratios, then the value of A is

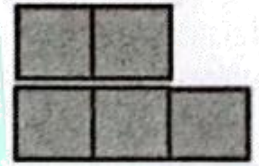
- (a) 4 (b) 2 (c) 8 (d) 9

11) From the opposite model, if Nada's age is 10 years, then Amir's age is years

- (a) 12 (b) 18 (c) 15 (d) 9

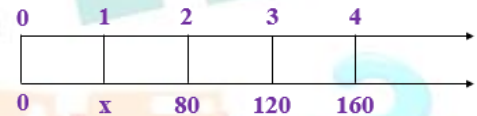
Nada's age

Amir's age



12) From the opposite double number line, the value of x is.....

- (a) 40 (b) 30
(c) 50 (d) 45



13) The sentence that expresses a unit rate among the following is.....

- (a) 3 pens for every student
(b) 6 pieces of candy for every 3 students
(c) 6 km for every 3 minutes
(d) 4 loaves of bread for every 4 students

14) The conversion factor used to convert from years to months is...

- (a) $\frac{1 \text{ year}}{10 \text{ months}}$ (b) $\frac{12 \text{ months}}{1 \text{ year}}$ (c) $\frac{1 \text{ year}}{1 \text{ month}}$ (d) $\frac{1 \text{ month}}{12 \text{ years}}$

15) The ratio that compares two equal quantities expressed in different units within the same measurement system is called

- (a) conversion factor (b) place value
(c) unit rate (d) equivalent ratios

16) $\frac{7}{10} = \dots\dots\dots\%$

- (a) 7% (b) 10% (c) 17% (d) **70%**

17) 65 % =

- (a) 0.5 (b) **0.65** (c) 0. (d) 0.85

18) In a class of 50 students, 10% of them like swimming. The number of students who like swimming is. students.

- (a) **5** (b) 10 (c) 40 (d) 60

19) If 18% of a number is 36, then the number is.....

- (a) 100 (b) **200** (c) 300 (d) 400

20) The percentage that represents 20 pounds out of 400 pounds is....

- (a) **5 %** (b) 10 % (c) 15 % (d) 20 %

21) 1% of 200 pounds is equal to..... pounds.

- (a) 0.02 (b) 0.2 (c) **2** (d) 20

22) The x-coordinate of the origin is.....

- (a) (0 , 0) (b) 1 (c) **0** (d) (0, 1)

23) The Point lies on the x-axis..

- (a) **(2 , 0)** (b) (1 , 1) (c) (2 , 3) (d) (0 , 2)

24) The point (6, -5) lies in the quadrant.

- (a) First (b) Second (c) Third (d) **fourth**

25) All of the following points lie on the fourth quadrant except

- (a) (3 , -7) (b) (2 , -5) (c) **(-1 , -4)** (d) (6 , -8)

26) Reflection of the point $(-4, 7)$ across x-axis produces the point

- (a) $(-4, -7)$ (b) $(4, -7)$ (c) $(-7, -4)$ (d) $(4, 7)$

27) Reflection of the point in the x-axis produces the point $(-4, 7)$

- (a) $(-4, -7)$ (b) $(4, -7)$ (c) $(-7, -4)$ (d) $(4, 7)$

28) If the point $(S, -3)$ lies in the third quadrant, then the possible value of $S = \dots$

- (a) 4 (b) -5 (c) 0 (d) 2

29) The point $(4, 0)$ lies on x-axis, then its reflection in y-axis lies on

- (a) X – axis (b) Y – axis
(c) Second quadrant (d) fourth quadrant

30) The following points lies in the fourth quadrant except

- (a) $(2, -1.5)$ (b) $(1.5, -1.5)$
(c) $(-2.25, -2.5)$ (d) $(2, -2.5)$

31) The pointlies on x – axis.

- (a) $(0, -2.5)$ (b) $(-2.5, 0)$ (c) $(-1.5, -2.5)$ (d) $(2, -2.5)$

32) Reflection of the point $(-1.5, 2.5)$ in x-axis produces the point....

- (a) $(-1.5, 2.5)$ (b) $(1.5, -2.5)$
(c) $(-1.5, -2.5)$ (d) $(1.5, 2.5)$

33) Reflection of the point $(2\frac{1}{4}, \frac{1}{2})$ in x-axis produces the point

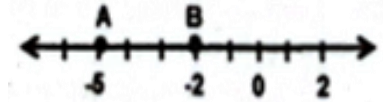
- (a) $(2\frac{1}{4}, \frac{1}{2})$ (b) $(2\frac{1}{4}, -\frac{1}{2})$
(c) $(\frac{1}{4}, -2\frac{1}{2})$ (d) $(\frac{1}{4}, 2\frac{1}{2})$

34) The distance between the two number 4 and -5 on the number line is units.

- (a) 1 (b) -1 (c) 9 (d) 1

35) The distance between the two points, A and B on the following line is units.

- (a) -3 (b) 7 (c) 3 (d) 7



36) The points (2,3), (2,-3) , (4,-3), (4,3) can form a

- (a) Square (b) Rectangle
(c) Trapezium (d) Right angled triangle

37) The point can be enclosed to form a rectangle using the points (3,-6),(4,1),(4,-6) is.....

- (a) (3,1) (b) (1, -6) (c) (4, -6) (d) (1, 3)

38) A triangle has an area 30 cm² and a height 10 cm, The length of its base iscm

- (a) 6 (b) 300 (c) 0.3 (d) 150

39) Area of A right-angled triangle is

- (a) $A = b \times h$ (b) $A = \frac{1}{2} \times b \times h$
(c) $A = 2 \times b \times h$ (d) $A = b \div h$

40) Number of Altitudes of the right-angled triangle is.....

- (a) 1 (b) 2 (c) 0 (d) 3

41) Which of the following represents the area of a triangle?

- (a) 28 cm (b) 28 cm² (c) 28 cm³ (d) 22.8 cm

42) Altitudes of an obtuse triangle intersect at a single point which liesthe triangle

- (a) acute (b) on (c) inside (d) **Outside**

43) A square pyramid its base area 30 cm^2 and the area of one of its faces is 10 cm^2 . then its surface area =..... cm^2 .

- (a) 40 (b) **70** (c) 55 (d) 100

44) A solid that consists of two congruent bases in the shape of a triangle and 3 rectangular faces is called a.....

- (a) Pyramid (b) Cube (c) **Prism** (d) Cuboid

45) A cuboid has dimensions 4 cm, 5 cm, and 5 cm. Its volume equals cm^3

- (a) **100** (b) 25 (c) 30 (d) 50

46) If the volume of a cuboid is 180 cm^3 and its height is 10 cm, then its base area is cm^2 .

- (a) 6 (b) **18** (c) 30 (d) 15

47) A cuboid has a volume 400 cm^3 , a base length 10 cm, and a width 5 cm. Its height is cm

- (a) **8** (b) 20 (c) 50 (d) 80

48) If we doubled the width of a cuboid is three times, its volume will be multiplied by..... times

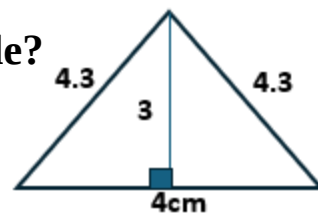
- (a) Two (b) **Three** (c) Six (d) Nine

49) A cuboid has a volume 50 cm^3 . Find its volume when two of its dimensions are doubled..... cm^3

- (a) 50 (b) 100 (c) 150 (d) **200**

50) Which of the following represents the area of the given triangle?

- (a) 28 cm (b) 6 cm²
 (c) 6 cm³ (d) 22.8 cm



51) Altitudes of the obtuse angled triangle intersect at a point the triangle.

- (a) acute (b) on (c) inside (d) outside

Second: answer the following:

1) Find the quotient of the division ($2 \div \frac{3}{5}$) using the bar models.



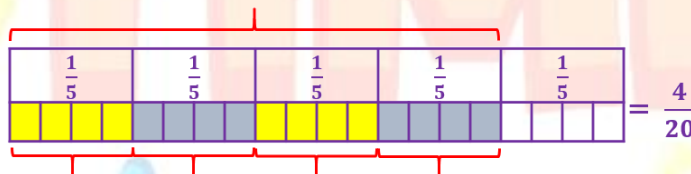
2) Find the quotient of the division ($\frac{1}{4} \div \frac{2}{8}$) using the bar models.



3) Write the multiplication problem used to check the solution of the problem:

($5 \div \frac{1}{5} = 25$) $\frac{1}{5} \times 25 = 5$

4) 4 friends share $\frac{4}{5}$ of a pizza. Find the share of each of them using bar models.



5) Hajar wants to prepare a candy recipe. The recipe requires $\frac{2}{3}$ cup of milk. Hajar has cup $\frac{4}{9}$ of milk. Does she have enough milk to make the whole recipe? What part of the candy recipe can she prepare with the amount of milk she has?

$\frac{2}{3} = \frac{6}{9}$ she has only $\frac{4}{9}$ so she doesn't have enough amount to make the whole recipe...

..... The part that she can prepare = $\frac{2}{3} \div \frac{4}{9} = \frac{2}{3} \times \frac{9}{4} = \frac{3}{2} = 1\frac{1}{2}$

6) Find the result in the simplest form using multiplication

a) $\frac{3}{15} \div \frac{6}{5} = \frac{1}{6}$

b) $\frac{9}{10} \div \frac{3}{5} = 1\frac{1}{2}$

c) $\frac{3}{5} \div \frac{1}{10} = 6$

7) Find the value of n in each of the following:

a) $n \times \frac{5}{8} = \frac{1}{16}$ $\frac{1}{10}$

b) $\frac{5}{6} \div n = \frac{5}{12}$ 2

8) Find the result of multiplying each of the following using the standard algorithm:

a) $2.31 \times 0.23 = 0.5313$

b) $12 \times 3.6 = 43.2$

9) Find the result of multiplying using conversion to common fractions or improper

a) $5.3 \times 4.2 = \frac{53}{10} \times \frac{42}{10} = \frac{2226}{100} = 22.26$

b) $4.2 \times 1.8 = \frac{42}{10} \times \frac{18}{10} = \frac{756}{100} = 7.56$

c) $1.7 \times 0.13 = \frac{17}{10} \times \frac{13}{100} = \frac{221}{1000} = 0.221$

10) Find the quotient of the division:

a) $3.2 \div 0.32 = 320 \div 32 = 10$

b) $3.6 \div 0.18 = 360 \div 18 = 20$

11) A class has 35 boys and 15 girls. Write the required ratio in its simplest form using two different | formats:

a) Ratio of the number of boys to the number of girls..... $7 : 3$ or 7 to 3

b) Ratio of the number of girls to the number of students in the class $3 : 10$ or 3 to 10

c) Ratio of the number of boys to the number of students in the class $7 : 10$ or 7 to 10

12) Put the following ratios in their simplest form:

(a) $\frac{9}{18} = \frac{.1}{.2}$

(b) $\frac{8}{32} = \frac{.1}{.4}$

(c) $\frac{6}{18} = \frac{.1}{.3}$

13) Complete the following table (keep the given ratio):

Number of yellow lamps	Number of red lamps	Total number of lamps
5	6	11.....
.....10.....	12.....	22.....

Number of yellow balls	Number of red balls	Total number of balls
10	9	19.....
.....20.....	18.....	38.....
.....30.....	27.....	57.....
.....40.....	36.....	76.....

14) If you know that Ibrahim solves 4 problems in 7 minutes at a constant rate, what is the number of minutes Ibrahim takes to solve 12 problems? And what is the number of problems Ibrahim solved in 49 minutes?

4 : 7

12 : 21

28 : 49

15) Sara needs 2 cups of flour for every 1 cup of milk to make a cake. Calculate the number of cups of milk required if she uses 4 cups of flour. And calculate the number cups of flour that can be used if she has 3 cups of milk?

2 : 1

4 : 2

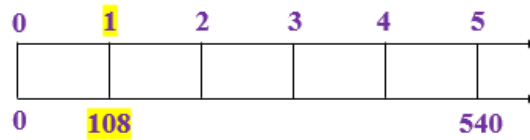
6 : 3

16) Are the two ratios $\frac{12}{24}$ and $\frac{7}{14}$ equivalent? Explain your answer?

.....The simplest form of each of them is $\frac{1}{2}$So they are equivalent.....

17) A candy factory produces 150 pieces of candy per hour. Calculate the number of candy pieces the factory produces in 8 hours.150 × 8 = 1200 pieces.....

18) 540 km for every 5 hours. Find the unit rate using the double number line.



19) Determine the best price for purchase in each of the following using the unit rate:

a) 3 sandwiches for 90 pounds or 5 sandwiches for 250 pounds.

.....The first unit rate = 30 / The second unit rate = 50.....

.....So, 3 sandwiches for 90 is the best price.....

b) 10 notebooks for 50 pounds or 9 notebooks for 36 pounds.

.....The first unit rate = 5 / The second unit rate = 4.....

.....So, 9 notebooks for 36 is the best.....

20) Amal takes 15.5 minutes to make a pizza. Calculate the time Amal takes in seconds.

..... $15.5 \times 60 = 930$ seconds.....

21) If Hazem's height is 1.4 meters, calculate his height in centimeters.

..... $1.4 \times 100 = 140$ cm.....

22) A class has 40 students. 60% of them prefer football. What is the number of

students who prefer football? $40 \times \frac{60}{100} = 24$ students.....

23) What is the value of 40% of 300 pounds?

..... $300 \times \frac{40}{100} = 120$ pounds.....

24) Fatima obtained 50 marks out of 80 marks in a mathematics test. Calculate the

percentage of the mark Fatima obtained.

..... $\frac{50}{80} \times 100 = 62.5\%$

25) Mohamed distributed 30 pieces of cake to his friends. This number represents 80% of the total number of cake pieces Mohamed had. What is the total number of cake pieces Mohamed had? $30 \div \frac{80}{100} = 37.5$ pieces.....

26) Write the following percentages as a decimal fraction:

27% **0.27**.....

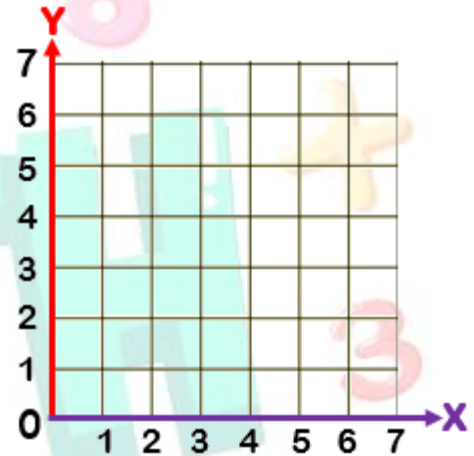
9 % **0.09**.....

31 % **0.31**.....

27) Using the adjacent coordinate plane, represent the following points:

A (0 , 5) , B (2 , 4) , C (4 , 2)

Plot the points with yourself



28) Determine the following points on the coordinate plane:

A (1.5 , 1.5) , B (-1.75 , -2.5) , C (3.5 , 0) , N (-1.75 , 2.5)

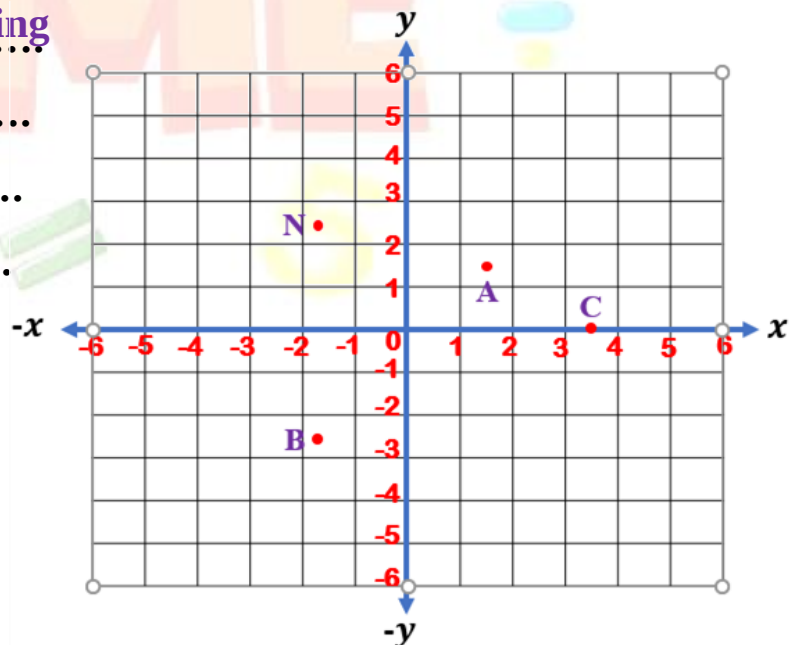
Then, identify the points that represent a reflection of each other or of themselves across the x-axis.

Point A Its reflection is (1.5 , -1.5) not existing

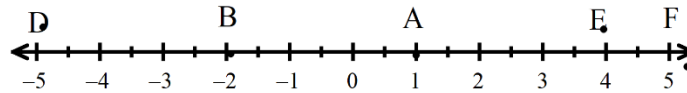
Point B Its reflection is point N

Point C Its reflection is it self

Point N Its reflection is point B



29) Observe the following number line and then find:



1) The distance between points A and E $4 - 1 = 3$

2) The distance between points E and F $5 - 4 = 1$

3) The distance between points A and B $1 + |-2| = 3$

4) The distance between points E and D $4 + |-5| = 9$

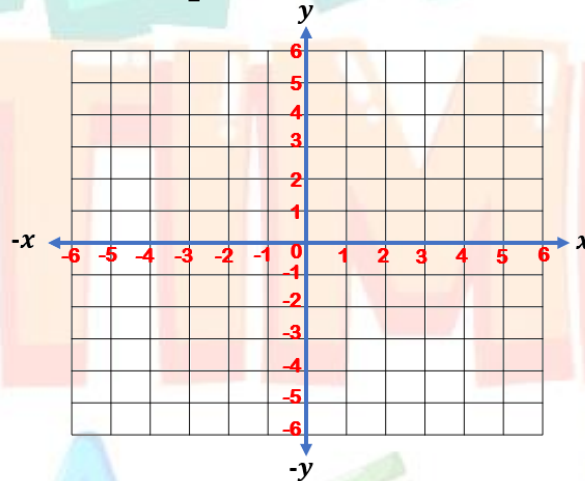
5) The distance between points A and D $1 + |-5| = 6$

6) The distance between points B and F $|-2| + 5 = 7$

30) Determine the following points on the coordinate:

$(-3, -4)$, $(2, -4)$, $(2, 0)$, $(-3, 0)$

Connect them to get a geometric shape and write its name. *With yourself*



31) A piece of land is in the shape of a parallelogram with a base length 18 m and a corresponding height 18 m. A house was built inside it in the shape of a rhombus with a side length 9 m and a height 8 m. Find the area of the remaining part of the land

$\text{Area of land (parallelogram)} = 18 \times 18 = 324 \text{ m}^2$

$\text{Area of house (rhombus)} = 9 \times 8 = 72 \text{ m}^2$

$\text{Area of remaining part} = 324 - 72 = 252 \text{ m}^2$

32) A parallelogram has two bases of lengths 16 cm and 12 cm and its greatest height is 6 cm. Find its area and the smaller height.

..... $\text{Area} = 12 \times 6 = 72 \text{ cm}^2$ / the smaller height $= 72 \div 16 = 4.5 \text{ cm}$

33) A triangle has a base length 4.2 cm and a corresponding height is 2.6 cm. Find its area.....

$\text{Area} = \frac{1}{2} \times 4.2 \times 2.6 = 5.46 \text{ cm}^2$

34) A triangle has an area of 32 cm^2 and a height of 8 cm. Find the length of its base.

..... $\text{Base} = 32 \div \left(\frac{1}{2} \times 8\right) = 8$

35) A triangle has a base length of 24 cm and a height of 7 cm. Find its area.

..... $\text{Area} = \frac{1}{2} \times 24 \times 7 = 84 \text{ cm}^2$

36) A triangle half of its height is 3 cm, and its base length is 8 cm. Find its area.

..... $\text{Area} = 3 \times 8 = 24 \text{ cm}^2$

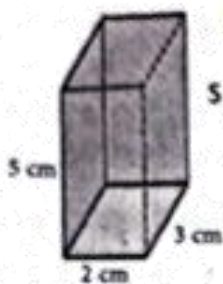
37) Which is smaller in area: A triangle with a base length of 40 cm and a corresponding height of 20 cm, OR a triangle with a base length of 38 cm and a corresponding height of 24 cm?

..... $\text{Area of first} = \frac{1}{2} \times 40 \times 20 = 400 \text{ cm}^2$



..... $\text{Area of second} = \frac{1}{2} \times 38 \times 24 = 456 \text{ cm}^2$

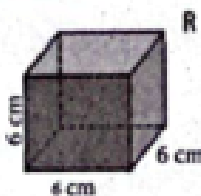
38) Calculate the surface area of the following solids:



Area =

$(2 \times 3 + 2 \times 5 + 3 \times 5) \times 2$

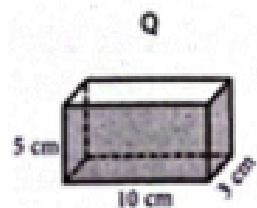
$(6 + 10 + 15) \times 2 = 62 \text{ cm}^2$



Area =

$S \times S \times 6 =$

$6 \times 6 \times 6 = 216$

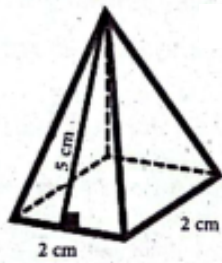


Area =

$(10 \times 3 + 10 \times 5 + 3 \times 5) \times 2$

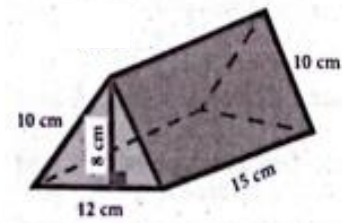
$(30 + 50 + 15) \times 2 = 190 \text{ cm}^2$

39) Calculate the surface area of the following solids:



Area =

$$20 + 4 = 24 \text{ cm}^2$$



Area =

$$(12 \times 8) + 15 \times (10 + 12 + 10) = 576 \text{ cm}^2$$

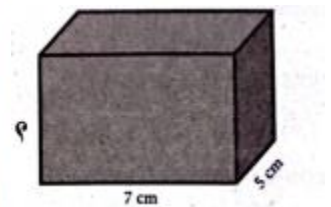
40) A cuboid has three dimensions: 6 cm, 5 cm, and 4 cm. Calculate its volume.

$$\text{Volume} = 6 \times 5 \times 4 = 120 \text{ cm}^3$$

41) If the volume of the given cuboid is 350 cm^3 .

Find the unknown dimension.

$$\text{Height} = 350 \div 35 = 10 \text{ cm}$$



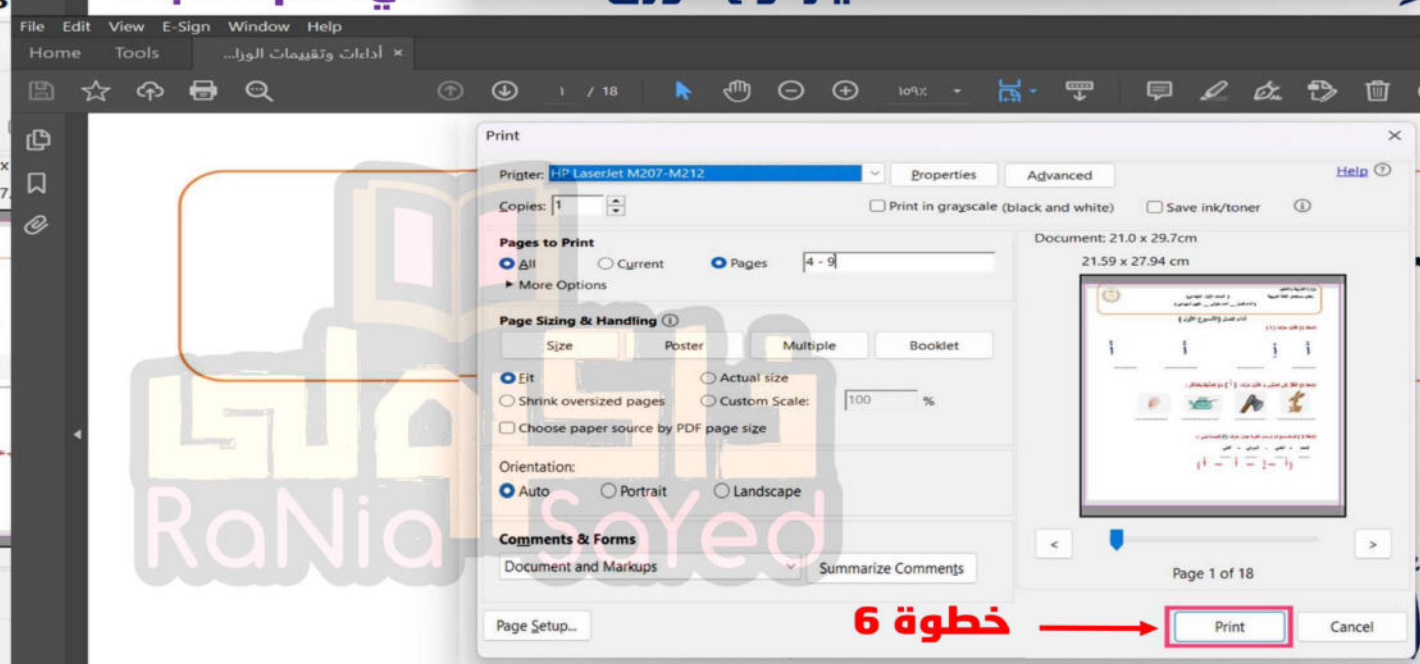
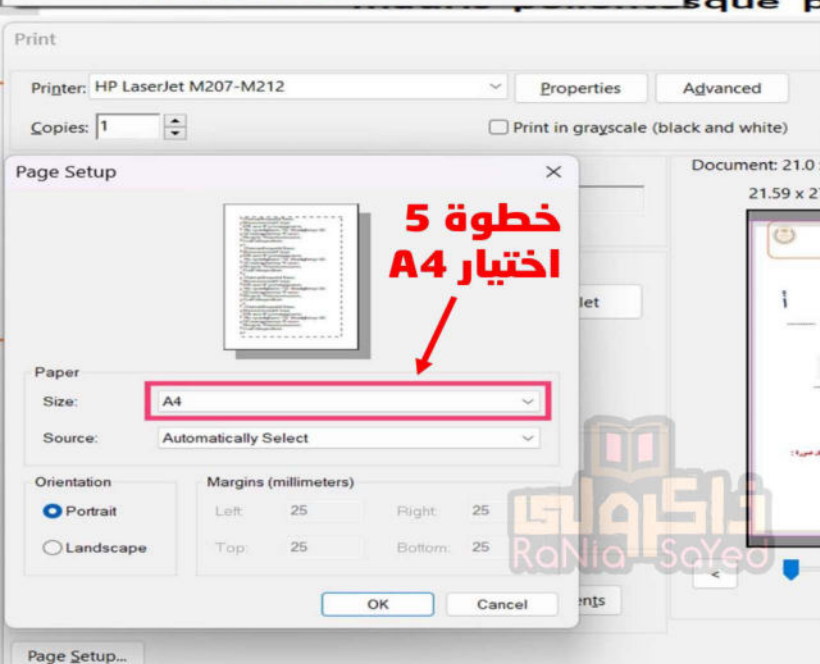
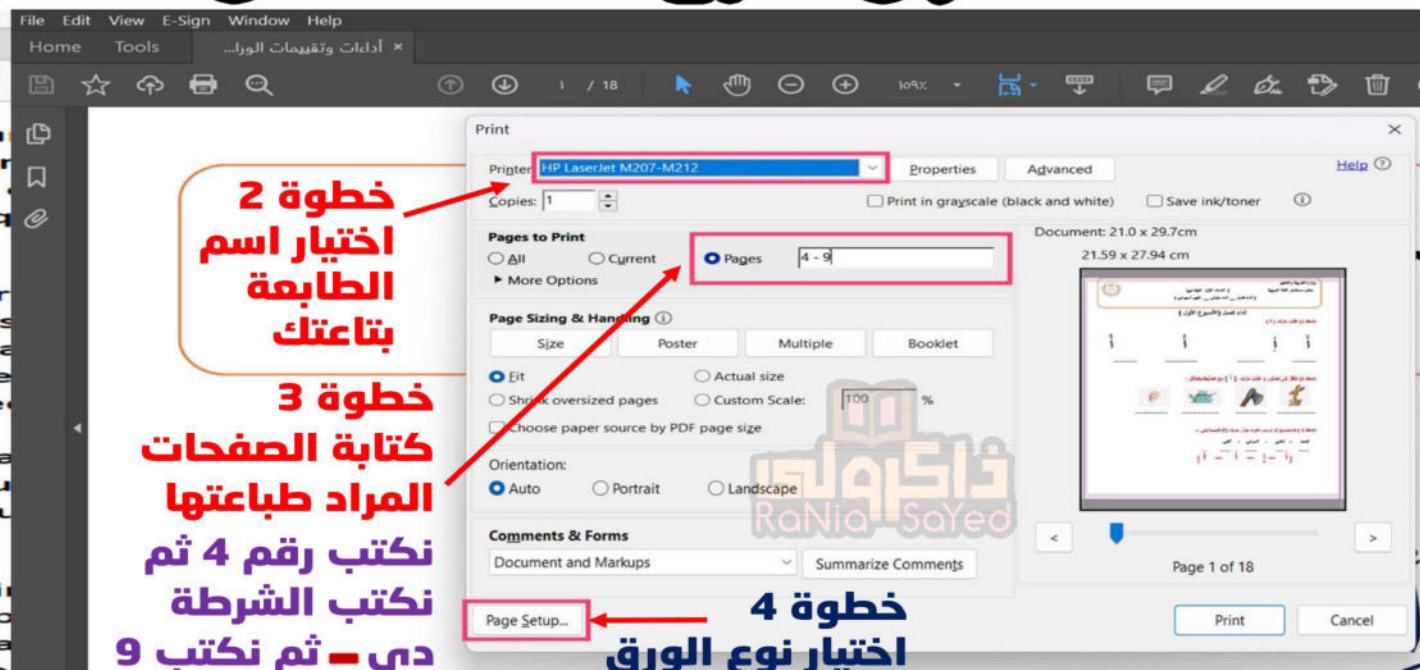
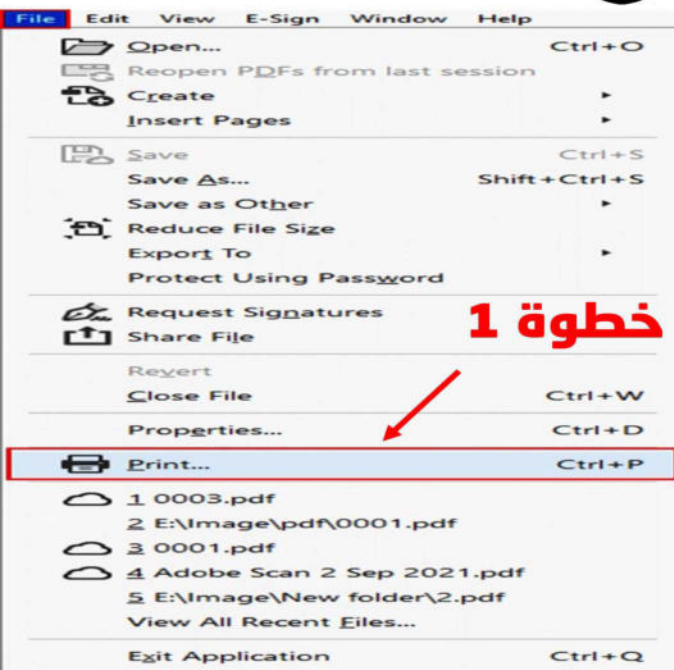
42) A cuboid has dimensions: 1 m, 2 m and 2.5 m. Find its volume if its length is doubled?

$$\text{Volume} = (1 \times 2 \times 2.5) \times 2 = 10 \text{ cm}^3$$

43) A cuboid has dimensions: 4 cm, 1.5 cm and 5 cm. Find its volume if its three dimensions are doubled?

$$\text{Volume} = (4 \times 1.5 \times 5) \times 8 = 240 \text{ cm}^3$$

كيفية طباعة صفحات معينة من ملف معين مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9



حمل الآن

مجاناً وحصرياً

المراجعة رقم (2)

الترم الثاني



Q1: Choose the correct answer :-

1 ----- x $\frac{2}{7}$ = 1

(a) zero

(b) 1

(c) $\frac{2}{7}$

(d) $\frac{7}{2}$

2 $5 \div \frac{1}{3}$ = -----

(a) 15

(b) $5\frac{1}{3}$

(c) $\frac{3}{5}$

(d) $\frac{5}{3}$

3 $\frac{2}{3} \div \frac{1}{2}$ = -----

(a) $\frac{4}{15}$

(b) $1\frac{1}{3}$

(c) $\frac{15}{4}$

(d) $\frac{1}{15}$

3 $\frac{3}{4} \div 2$ = -----

(a) $\frac{3}{8}$

(b) $\frac{6}{4}$

(c) $\frac{4}{6}$

(d) $\frac{3}{2}$

5 2.1×0.3 = -----

(a) 6.3

(b) 0.63

(c) 63

(d) 0,063

6 If $15.25 \div 0.25 = 61$, then $1.525 \div 0.025$ = -----

(a) 61

(b) 610

(c) 6.1

(d) 0.61

7 By using the opposite model
what is the quotient of $3 \div \frac{2}{3}$

1			1			1		
$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

(a) 2

(b) $4\frac{1}{2}$

(c) $\frac{3}{2}$

(d) $\frac{2}{3}$

8 ----- $\div \frac{1}{4}$ = 1

(a) 0.4

(b) 1

(c) 4

(d) $\frac{1}{4}$

9 you can use the opposite model to solve the problem

a $\frac{1}{10} \div \frac{1}{2}$

b $\frac{1}{10} \div 5$

c $\frac{1}{2} \div 5$

d $\frac{1}{2} \div 10$



Q2: Answer the following :-

1 Find :

a $4.2 \div 0.06 = \dots\dots\dots$ **b** $1.2 \times 0.3 = \dots\dots\dots$

c $\frac{2}{3}$ of $\frac{3}{2}$ $\dots\dots\dots$ **d** $5 \div \frac{5}{9} = \dots\dots\dots$

2 Baher covered $\frac{2}{3}$ km in 5 minute.

What is the distance covered in one minute ?

$\dots\dots\dots$
 $\dots\dots\dots$

3 If the price of one meter of cloth is 9.8 1.E.

What is the cost of 1.5 meters of cloth ?

$\dots\dots\dots$
 $\dots\dots\dots$

4 By using the modeling division find the quotient.

a $\frac{3}{4} \div \frac{2}{5}$

b $\frac{2}{3} \div 4$

$\dots\dots\dots$
 $\dots\dots\dots$
 $\dots\dots\dots$

- 5** A car covered a distance of 221.65 km in 2.75 hours. Calculate the distance it covered in one hour.

.....

.....

.....

- 6** You have $\frac{3}{4}$ meters of pipe, how many pieces can you cut the pipe into if each piece is $\frac{1}{8}$ meters ?

.....

.....

.....

- 7** A train covered a distance of 221.65 km in 2.75 hours. Calculate the distance it covered in one hour.

.....

.....

.....

Q1: Choose the correct answer :-

1 The ratio between 28 : 14 in the simplest form is 2 : -----

- (a) 2 (b) 3 (c) 1 (d) 7

2 The ratio between orange circles and the total number of circles in simplest form is -----



- (a) 4 : 8 (b) 4 : 5 (c) 2 : 3 (d) 4 : 9

3 The ratio between two side lengths of square is -----

- (a) 1 : 4 (b) 2 : 4 (c) 1 : 2 (d) 1 : 1

4 Which ratio means the same thing as 19 : 1 ?

- (a) 1 through 1 (b) 19 to 1 (c) 1 to 1 (d) $\frac{19}{19}$

5 The next ratio of 2 : 5 , 6 : 15 , 18 : 45 , -----

- (a) 54 : 90 (b) 36 : 90 (c) 54 : 135 (d) 54 : 180

6 If the ratio between a and b is 1:4 and the sum of a and b is 20 , then b = -----

- (a) 16 (b) 5 (c) 4 (d) 80

7 If the ratio between oranges and bananas is 3 : 4 and the number of bananas is 20, then the difference between them is -----

- (a) 1 (b) 5 (c) 15 (d) 20

8 If $\frac{8}{x}$ is equivalent to $\frac{1}{2}$, then x = -----

- (a) 4 (b) 8 (c) 16 (d) 40

Q2: Answer the following :-

1 Write each of the following ratios in its simplest form.

a $25 : 30$

b $42 : 35$

c $63 : 81$

2 The total number of boys and girls in a school is 480 ,
if the number of boys in this school is 320 , find :

a The ratio between the number of boys and the number of girls.

.....

b The ratio between the number of boys and the total number of pupils.

.....

c The ratio between the number of girls and the total number of pupils.

.....

3 Adam says that the ratios $3 : 5$ and $2 : 10$ are equivalent.

Is he correct ? Explain.

.....

.....

4 A runner covers 10 kilometers in 2 hours.

Find the distance he covers in 4 hours at the same speed.

.....

.....

Q1: Choose the correct answer :-

30

1 $25 : 50 = \text{-----}$

- (a) 10 : 5 (b) 1 : 2 (c) 2 : 1 (d) 5 : 1

2 If $\frac{3}{4} = \frac{x}{20}$, then X = -----

- (a) 7 (b) 15 (c) 21 (d) 24

3 The tape diagram represents the ratio -----



- (a) 5 : 2 (b) 3 : 2 (c) 7 : 2 (d) 2 : 5

4 Which of the following is equivalent to $\frac{8}{12}$

- (a) $\frac{10}{15}$ (b) $\frac{3}{4}$ (c) $\frac{3}{2}$ (d) $\frac{1}{2}$

5 In the opposite figure, the ratio between number of red squares and number of green squares = ----

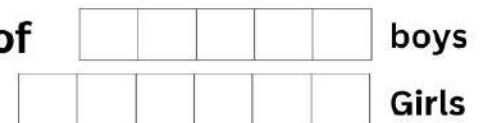


- (a) 5 : 2 (b) 3 : 4 (c) 7 : 2 (d) 2 : 3

6 Which of the following is NOT equivalent to $\frac{14}{21}$

- (a) $\frac{2}{3}$ (b) $\frac{16}{24}$ (c) $\frac{18}{27}$ (d) $\frac{4}{2}$

7 In the opposite tape diagrams. If the number of boys is 20, then the number of girls =-----



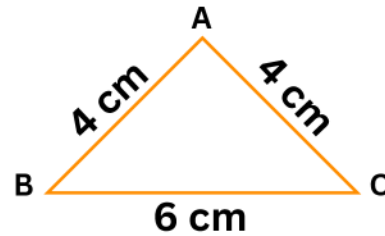
- (a) 16 (b) 20 (c) 24 (d) 30

8 Which of the following are equivalent ?

- (a) $\frac{18}{20}, \frac{27}{30}, \frac{1}{3}$ (b) $\frac{18}{20}, \frac{9}{10}, \frac{27}{30}$ (c) $\frac{9}{10}, \frac{16}{20}, \frac{36}{40}$ (d) $\frac{2}{9}, \frac{4}{18}, \frac{8}{27}$

9 In the opposite figure : The ratio between length of $\overline{AB}$ and perimeter of $\triangle ABC$ is -----

- (a) 1 : 10 (b) 2 : 3
(c) 6 : 8 (d) 2 : 7



Q2: Answer the following :-

1 Find each ratio in simplest form.

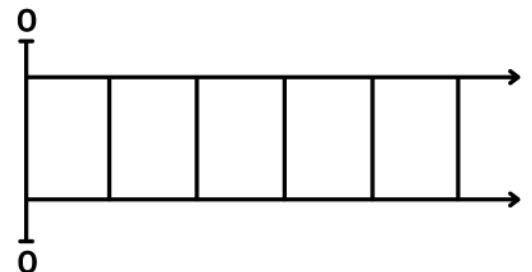
- (a) 49 : 56 (b) 24 : 30

2 Show which of the following ratios are equivalent or not equivalent.

- (a) $\frac{20}{24}$, $\frac{18}{27}$
(b) $\frac{36}{18}$, $\frac{48}{24}$

3 The following table shows the covered distance of cat in meters and the time taken in seconds. Represent this data by double number line and find the value of A and B .

Distance in meters	2	4	A	8
Time in seconds	4	8	12	B



7 Ahmed bought 3 kg of banana he paid 45 L.E.
How much money does he pay to buy 6 kg ?

.....
.....

- 5** In a juice shop 3 kilograms of strawberry were squeezed to provide 9 cups of juice to customers. If 6 kilograms were squeezed, how many cups can be served to customers ?

.....

.....

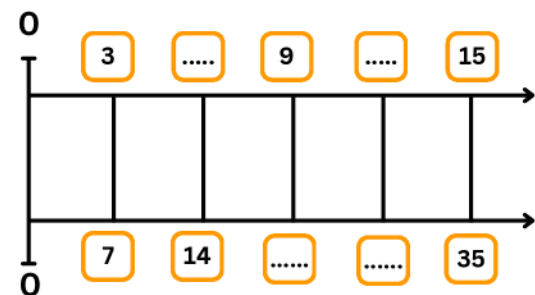
- 6** **a** Complete the following double number line using the given ratio.

$3 : 7$

- b** Write three equivalent ratios .

.....

.....



- 7** If Wael has 40 L.E. and Ahmed has 32 L.E. Find:

- a** The ratio between what Wael has and what Ahmed has in simplest form.

.....

- b** The ratio between what Ahmed has and what Wael has in simplest form

.....

Q1: Choose the correct answer :-

1 Which of the following is a unit rate ?

- (a) 20 LE per 2 kg (b) 8 spoons of sugar for 4 cups of tea
(c) 105 km per 3 hours (d) 3 liters per a bottle

2 Which of the following is NOT a conversion factor ?

- (a) 1 hr = 3600 sec (b) 12 month : 1 year (c) 1000 mm = 1 L (d) $\frac{1 \text{ min}}{60 \text{ sec}}$

3 30 LE for 5 kg , then the cost of 30 kg is ----- LE

- (a) 5 (b) 30 (c) 180 (d) 90

4 180 min x ----- = 3 hr

- (a) $\frac{1 \text{ hr}}{60 \text{ min}}$ (b) $\frac{1 \text{ min}}{60 \text{ hr}}$ (c) $\frac{1 \text{ hr}}{180 \text{ min}}$ (d) $\frac{60 \text{ min}}{1 \text{ hr}}$

5 A car consumes $\frac{1}{10}$ liter of petrol to cover 1 km , then it covers ----- km per liter .

- (a) 5 (b) 1 (c) 10 (d) 20

6 Which of the following is the least speed ?

- (a) 70 km per hr (b) 1200 m per min (c) 25 m per sec (d) 81,000 m per hr

7 75 % = -----

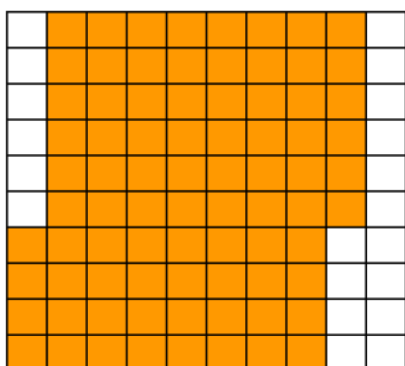
- (a) $\frac{1}{4}$ (b) $\frac{1}{2}$ (c) $\frac{4}{4}$ (d) $\frac{3}{4}$

8 All of the following = 80 % , except -----

- (a) $\frac{8}{10}$ (b) 0.80 (c) $\frac{8}{100}$ (d) 0.8

Q1: Answer the following :-

- 1** Express each shaded area as a percent, as a fraction and as a decimal in simplest form .



- percent : -----
- fraction : -----
- decimal : -----

- 2** The speed of a car is 80 km per hr . Find the speed of the car in meter per second using the conversion factor .

.....

.....

.....

- 3** Find the value of X in each of the following :

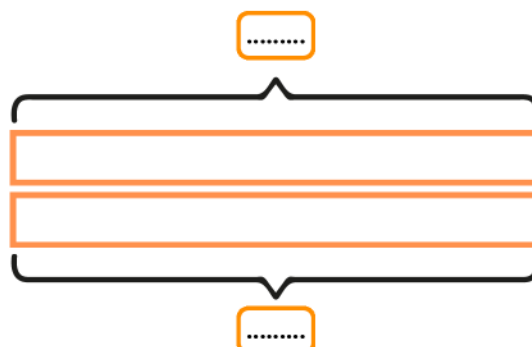
a $\frac{X + 6}{20} = 50 \%$

.....

.....

- 4** Use the opposite tape diagram to find the unit rate , then complete .

- 36 LE for 4 notebooks ,
- then ----- LE for each notebook .

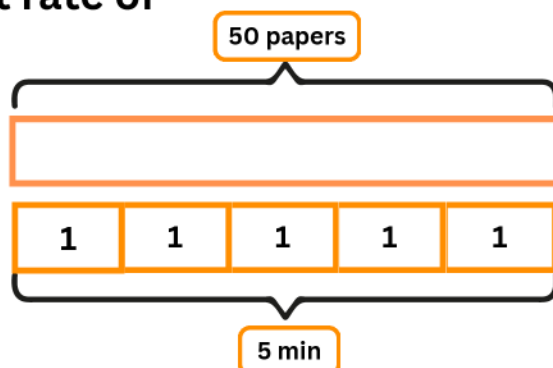


Q1: Choose the correct answer :-

- 1 20 % of 40 kg = ----- kg
 (a) 4 (b) 8 (c) 12 (d) 16
- 2 $\frac{\text{-----}}{3600 \text{ sec}}$ is a conversion factor.
 (a) 1 min (b) 1 sec (c) 1 hr (d) 60 min
- 3 Which of the following is NOT conversion factor?
 (a) $\frac{60 \text{ min}}{1 \text{ sec}}$ (b) $\frac{1\text{L}}{1000 \text{ mL}}$ (c) $\frac{1000 \text{ m}}{1 \text{ km}}$ (d) $\frac{1 \text{ day}}{24 \text{ hr}}$
- 4 150 km per 3 hr = ----- km per hr
 (a) 450 (b) 200 (c) 250 (d) 50
- 5 $1\frac{1}{2} = \text{-----} \%$
 (a) 5 (b) 150 (c) $1\frac{1}{2}$ (d) 1500
- 6 20 cups of flour to make 5 pizza ,then ----- pizza per cup of flour.
 (a) 100 (b) 4 (c) $\frac{1}{5}$ (d) $\frac{1}{4}$
- 7 20% of pupils in the class = 5 pupils ,then the total number of pupils in the class = -----
 (a) 20 (b) 50 (c) 100 (d) 25
- 8 $\frac{1}{8}$  8 %
 (a) < (b) = (c) >

- 9** From the opposite tape diagram, the unit rate of the printer is ----- papers per min

- (a) 250 (b) 50
(c) 10 (d) 25



Q2: Answer the following :-

- 1** On the sale, a shop offers a discount 15%, if the price of an article is 1600 L.E.
Find the price after discount.

.....

.....

.....

- 2** Which is best buy ?

- (a) 15 kg per 30 L.E. (b) 12.5 L.E. per 5 kg

.....

.....

- 3** Which is the longest ? 2.35 km or 965 cm ?

.....

.....

- 4** A speed of a car is 2500 cm per sec. convert its speed to km per hr.

.....

.....

5 Find the value of X in the following : $\frac{2}{X+4} = 5\%$

.....

.....

.....

6 Ahmed spends about 4.5 hours to study his lessons daily .
How long does he spend in minutes ?

.....

.....

.....

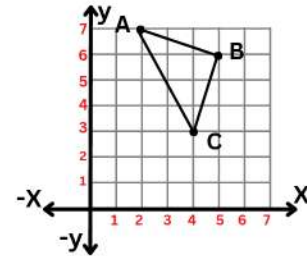
7 Online store gives a discount 25% off on all products and
charges each item 5% of its reduction price for delivery.
If the price of one of its products is 240 L.E.
What is the final cost of this item including the delivery
expensses?

.....

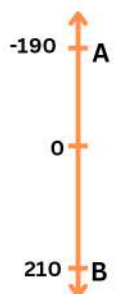
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Q1: Choose the correct answer :-

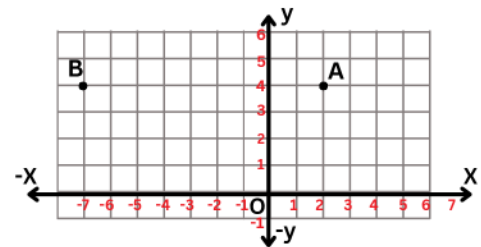


- 1 In the opposite figure:
Which set of ordered pairs shows the coordinates of the points A ,B and C ?
 - a (7 , 2) , (6 , 5) , (3 , 4)
 - b (7 , 2) , (5 , 6) , (3 , 3)
 - c (2 , 7) , (5 , 6) , (4 , 3)
 - d (2 , 7) , (6 , 5) , (4 , 3)
- 2 Which of the following values could be the y-coordinate of the point (10 ,) that is 13 units from (10 , 6)
 - a 17
 - b 3
 - c -1
 - d -7
- 3 The point (-2 , 3) lies in the..... quadrant.
 - a 1st
 - b 2nd
 - c 3rd
 - d 4th
- 4 Which of the following lies on the y-axis?
 - a (-1 , 0)
 - b (0 , -1)
 - c (3 , 3)
 - d (5 , 0)
- 5 In the opposite figure: The distance between A and B is
 - a 20
 - b 210
 - c 400
 - d 190
- 6 The points (1 , -1) ,(2 , -2) ,(4 , -5) ,(-3 , -4).....
 - a lie in the 2nd quadrant
 - b lie in the 3rd quadrant
 - c lie in the 4th quadrant
 - d do not lie in the same quadrant
- 7 Plot the points O (0 , 0) , A (3 , 0) , B (3 , 4) , C (0 , 4) and join them ,the figure which obtained is
 - a Square
 - b Rectangle
 - c Trapezium
 - d Rhombus
- 8 The distance between the point (2 , 3) and its image by reflection across y-axis = units
 - a 3
 - b 2
 - c 6
 - d 4



9 In the opposite coordinate plane ,the length of AB = units.

- (a) 7 (b) 9
(c) 14 (d) -9



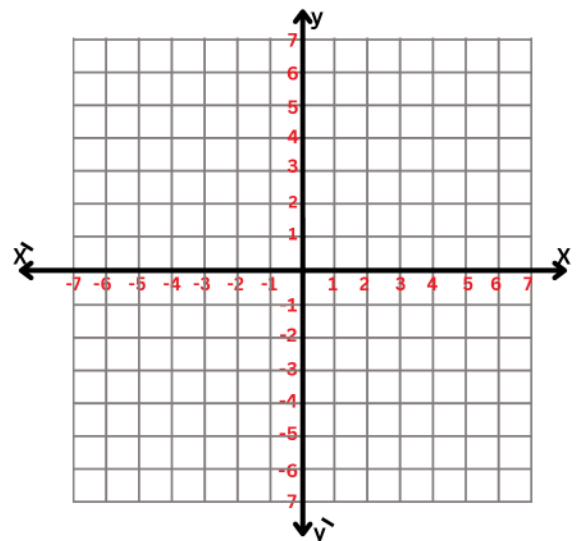
Q2: Answer the following :-

1 Find the distance between C(3 , -4) and D(3 ,-2)

.....
.....

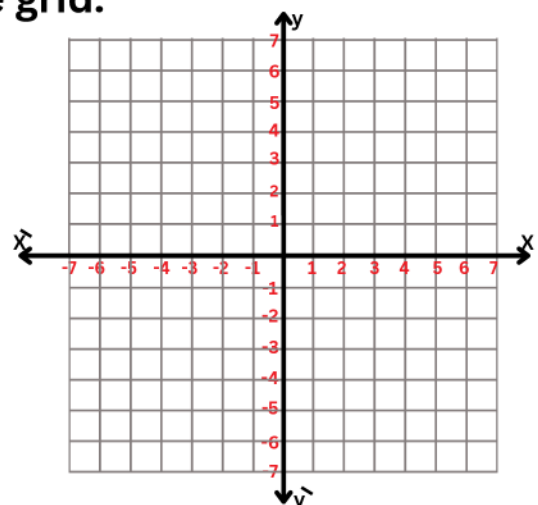
2 Plot the points A (-2 , -3) , B (2 , -3)
Find the coordinates of C and D
if ABCD is a square (two answers are possible)

- C (..... ,) lies in quadrant.
- D (..... ,) lies in quadrant.



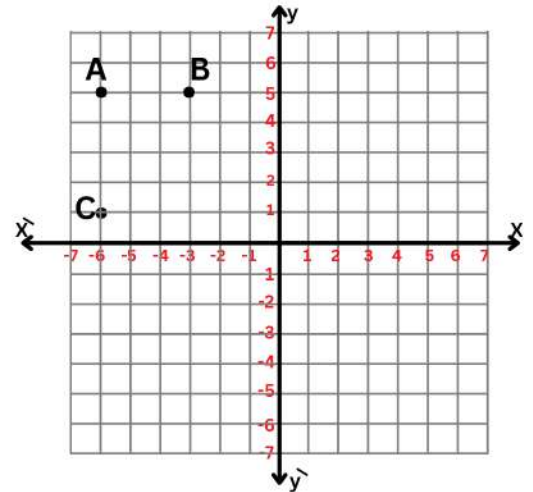
3 Plot the following points on the opposite grid:
A (3 , 2) , B (-3 , 2) , C (-3 , -2) , D (3 , -2)
Join them then identify the shape

.....
.....



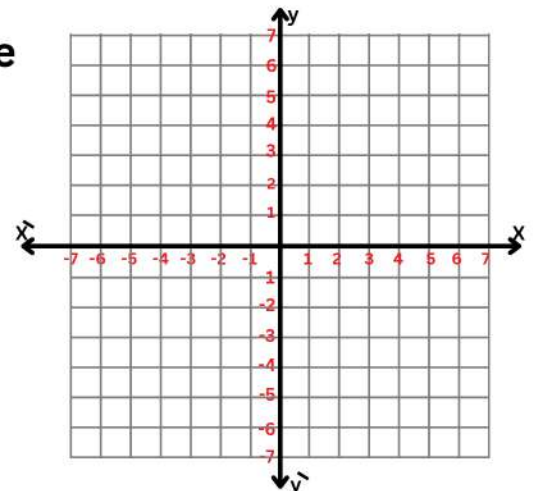
- 4** If you are at $(-1, 0)$. Move 2 units left and 5 units up
Where do you land ?
-

- 5** Plot the coordinates of point D to form a rectangle .

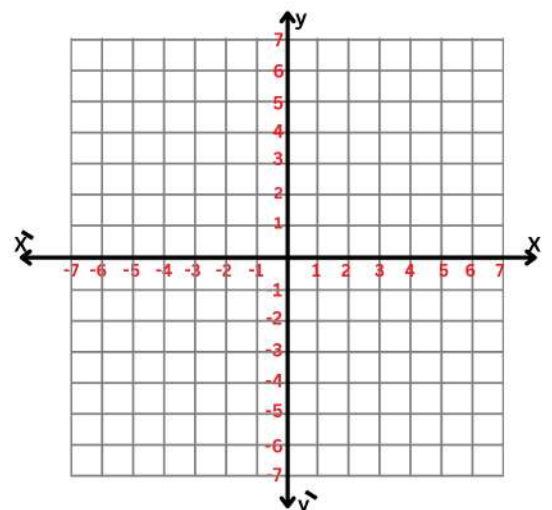


- 6** Plot each set of ordered pairs. Join the points and find the length of the result line segment .

- a** $(-1, 2)$ and $(5, 2)$
- b** $(-5, -1)$ and $(4, -1)$



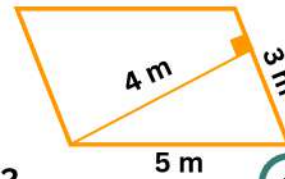
- 7** Identify the shape joining the points
A $(3, 2)$, B $(-1, 2)$,
C $(-1, -3)$ and D $(3, -3)$



Q1: Choose the correct answer :-

1 Area of the parallelogram = m^2

- (a) 20 (b) 15 (c) 12 (d) 8



2 Area of a parallelogram =

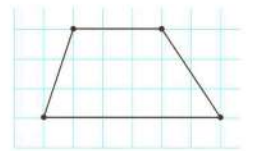
- (a) $\frac{1}{2} \times b \times h$ (b) $2 \times b \times h$ (c) $b \times h$ (d) $\frac{b \times h}{4}$

3 If the dimensions of a parallelogram are 10 m and 6 m and the greater height is 5 m ,then its smaller height is m

- (a) 3 (b) 30 (c) 50 (d) 60

4 Area of the drawn trapezium = square units

- (a) 27 (b) 13.5 (c) 18 (d) 54

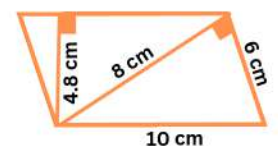


5 Area of a rhombus whose side length is 2.4 cm and its height is 2 cm is cm^2

- (a) 4.8 (b) 5.6 (c) 8 (d) 10.2

6 Which of the following expressions does represent the area of the opposite parallelogram?

- (a) $\frac{1}{2} \times 6 \times 8$ (b) 6×10 (c) 4.8×8 (d) 10×4.8

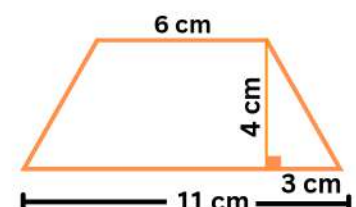


7 If a base length of a parallelogram is 10 m and its corresponding height is 3 less than it ,then the area of the parallelogram = m^2

- (a) 30 (b) 70 (c) 35 (d) 15

8 Area of the opposite trapezium = cm^2

- (a) 30 (b) 34
(c) 40 (d) 55



- 9** A rhombus of side length 14 cm and the ratio between its height and its side length is 5 : 7 ,then the area of the rhombus is cm^2
- a** 35 **b** 70 **c** 100 **d** 140

Q2: Answer the following :-

- 1** A triangle of base length 5 cm and its corresponding height 2 cm more than it. Find the area of the triangle.
-
-
-
-
- 2** Find the area of the rhombus whose perimeter is 20 cm and its height is 3.4 cm
-
-
-
-
- 3** Find the side length of a triangle whose area 24 m^2 and its height is 4 m
-
-
-
-

- 4** Find the area of the rhombus whose perimeter is 32 cm and its height is 5.2 cm

.....

.....

.....

- 5** A parallelogram whose base length 12 cm and its corresponding height 10 cm or a rectangle whose dimensions are 14 cm and 8 cm. Which is greater in area ?

.....

.....

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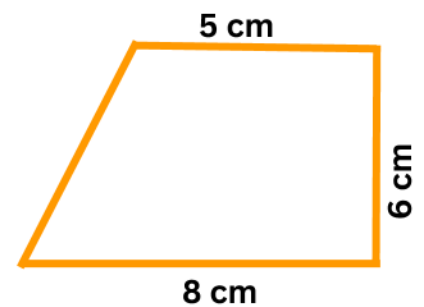
- 6** Find The area of the following figure

.....

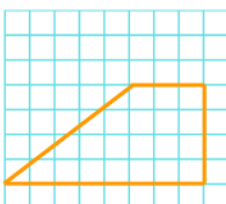
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- 7** Which is smaller in area ?



A trapezium Or A rhombus

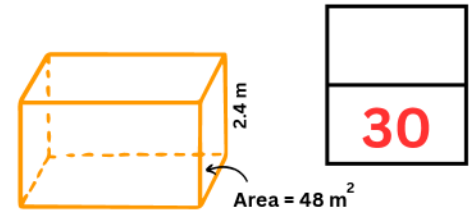


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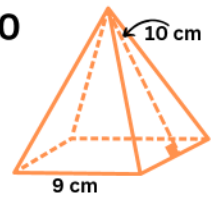
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Q1: Choose the correct answer :-



- 1 The volume of the opposite cuboid = m^2
 (a) 120 (b) 84.2 (c) 224.2 (d) 115.2
- 2 If the three dimensions of a cuboid are doubled ,then the ratio between the new volume to the original volume of the cuboid is :
 (a) 8 : 1 (b) 1 : 8 (c) 4 : 1 (d) 1 : 4
- 3 The perimeter of one face of a cube is 28 cm ,then the surface area of the cube is cm^2
 (a) 168 (b) 224 (c) 294 (d) 314
- 4 The surface area of the cuboid whose length 12 cm ,its width is 8 cm and its height 9 cm = cm^2
 (a) 480 (b) 552 (c) 630 (d) 740
- 5 The surface area of the opposite pyramid is cm^2
 (a) 148 (b) 156 (c) 240 (d) 261
- 6 The volume of the cuboid whose base area 24.5 cm^2 and its height is 18 cm equals cm^3
 (a) 882.5 (b) 294 (c) 220.25 (d) 441
- 7 A cuboid of volume 35 cm^3 ,one of its dimensions is doubled ,then the new volume of the cuboid is cm^3
 (a) 17.5 (b) 70 (c) 105 (d) 140
- 8 The volume of the cuboid =
 (a) $l + w + h$ (b) $2lwh$ (c) lwh (d) $\frac{lwh}{2}$



9 A square pyramid ,its base perimeter is 36 cm and the area of one of its triangular faces is $29 \frac{3}{4} \text{ cm}^2$, then its surface area is cm^2

- (a) 100 (b) 200 (c) 300 (d) 400

Q2: Answer the following :-

1 A cuboid with dimensions 14.3 cm ,10.2 cm and 8 cm
Find the volume of the cuboid

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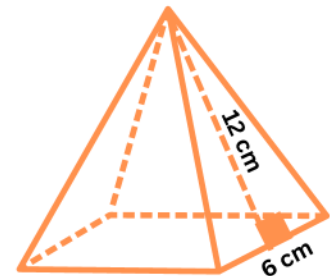
2 Calculate the surface area of the opposite square pyramid

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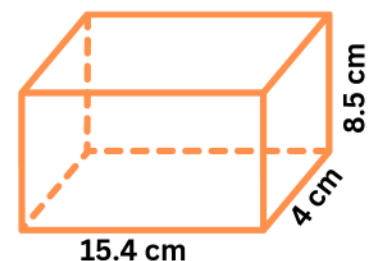
3 Find the surface area and the volume of the opposite cuboid

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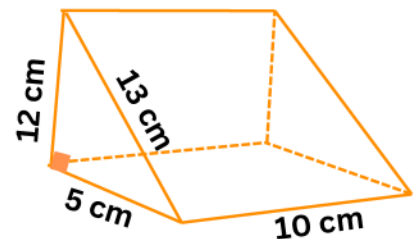
4 Find the surface area of the opposite triangular prism

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5 A juice case in the shape of cuboid ,ite base is square-shaped of side length 6.5 cm and its height is 10 cm Find the volume of juice which fills the case completely

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6 If the volume of a cuboid is 48 cm^3 . If its three dimensions are doubled ,then find the new volume of the cuboid.

.....

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7 A cuboid whose dimensions are 7.2 cm , 4.1 cm and 8.3 cm. Estimate its volume ,then find its actual volume.

.....

.....

.....

Q1:-

1 D

2 A

3 B

4 A

5 B

6 A

7 B

8 D

9 C

Q2:-

1 (a) 70

(b) 0.36

(c) $\frac{2}{3} \times \frac{3}{2} = 1$

(d) $5 \div \frac{5}{9} = \frac{5}{1} \times \frac{9}{5} = 9$

2 $5 \div \frac{2}{3} = \frac{5}{1} \times \frac{3}{2} = \frac{15}{2} km$

3 $9.8 \times 1.5 = 14.7 \text{ L.E}$

4 (a) $\frac{15}{8}$ draw yourself

(a) $\frac{1}{6}$ draw yourself

5 $221.6 \div 2.75 = 80.6 km$

6 $\frac{3}{4} \div \frac{1}{8} = \frac{3}{4} \times \frac{8}{1} = 6 pieces$

7 $\frac{3}{5} \div \frac{1}{25} = \frac{3}{5} \times \frac{25}{1} = 15 pieces$

Q1:-

- 1** C **2** D **3** D **4** B **5** C
- 6** A **7** C **8** C

Q2:-

- 1** **a** 5 : 6 **b** 6 : 5 **c** 7 : 9

- 2** number of girls = $480 - 320 = 160$ girls

- a** 2 : 1 **b** 2 : 3 **c** 1 : 3

- 3** No, because $2 : 10 = 1 : 5$

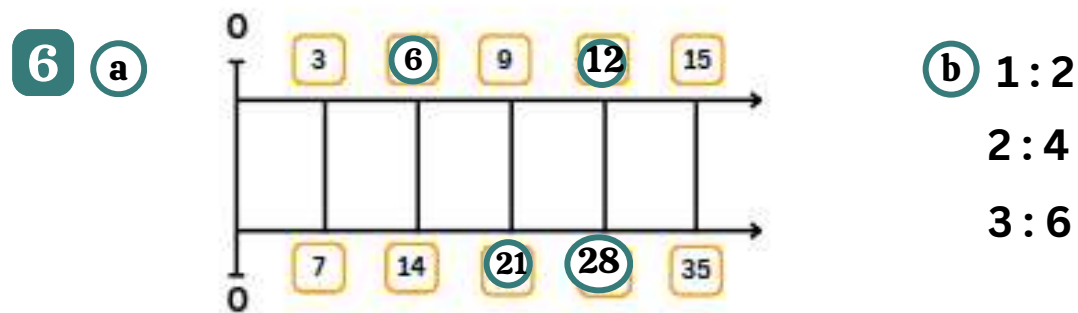
- 4** The unit rate = $10 \div 2 = 5km$
The distance in 4 hours = $5 \times 4 = 20km$

Q1:-

- 1 B 2 B 3 D 4 A 5 B
6 D 7 C 8 B 9 D

Q2:-

- 1 a 7 : 8 b 4 : 5
2 a Notequivalent b Equivalent
3 A = 6 B = 16
4 The price of one kilogram = $45 \div 3 = 15L. E$
The price of 6 kilogram = $3 \times 6 = 18L. E$
5 18 cups

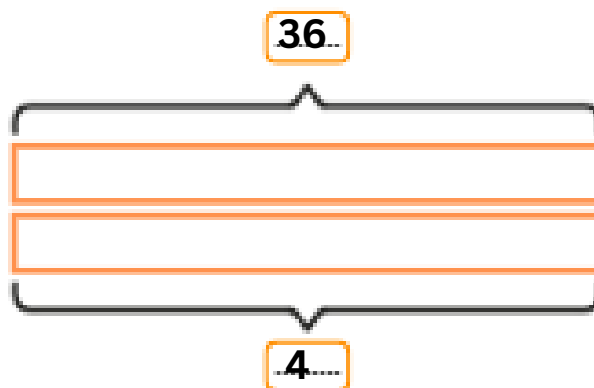


- 7 a 5 : 4 b 4 : 5

Q1:-**1** D**2** C**3** C**4** A**5** C**6** A**7** D**8** CQ2:-**1** 80 % , $\frac{80}{100} = \frac{8}{10}$, 0.8**2** $\frac{80km}{1hr} \times \frac{1000m}{1km} \times \frac{1hr}{3600sec} = \frac{200m}{9sec}$ **3** $\frac{x+6}{20} = \frac{1}{2}$

$$x+6=10$$

$$x=4$$

4 9 L.E for each

Q1:-

- 1 B 2 C 3 A 4 D 5 B
- 6 D 7 D 8 C 9 C

Q2:-

- 1 10% of 1600 = 160 L.E
5% = 320 L.E
The price after discount = 1600 - 320 = 1280 L.E
- 2 (a) $30 \div 15 = 2 \text{ L. E per 1 Kg}$ the best buy
- (b) $12.5 \div 5 = 2.5 \text{ L. E per 1 Kg}$
- 3 2.35 Km > 965 cm
- 4 $\frac{2500 \text{ cm}}{1 \text{ sec}} \times \frac{1 \text{ km}}{100,000 \text{ cm}} \times \frac{3600 \text{ sec}}{1 \text{ hr}} = \frac{90 \text{ km}}{1 \text{ hr}}$

5 $\frac{2}{x+4} = \frac{5}{100}$

$$\frac{2}{x+4} = \frac{1}{20}$$

$$x + 4 = 40$$

6 $4.5 \times 60 = 270 \text{ minutes}$

7 $10\% \text{ of } 240 = 24 \text{ L.E}$

$$20\% = 48 \text{ L.E}$$

$$\text{The price after discount} = 240 - 48 = 192 \text{ L.E}$$

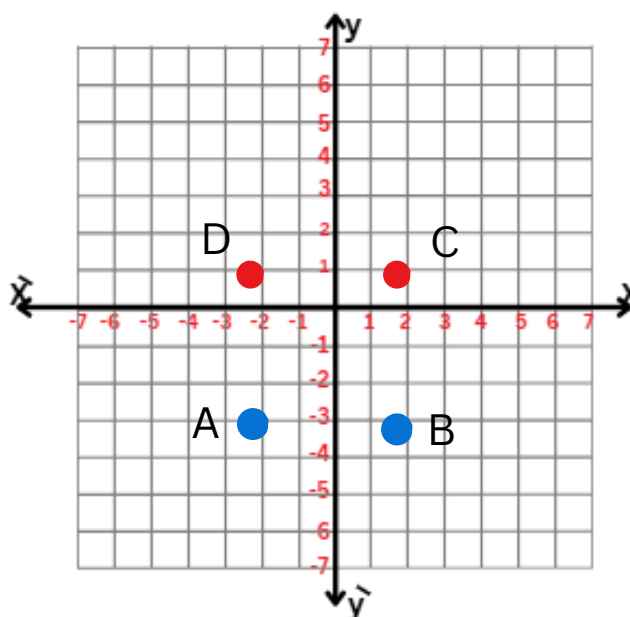
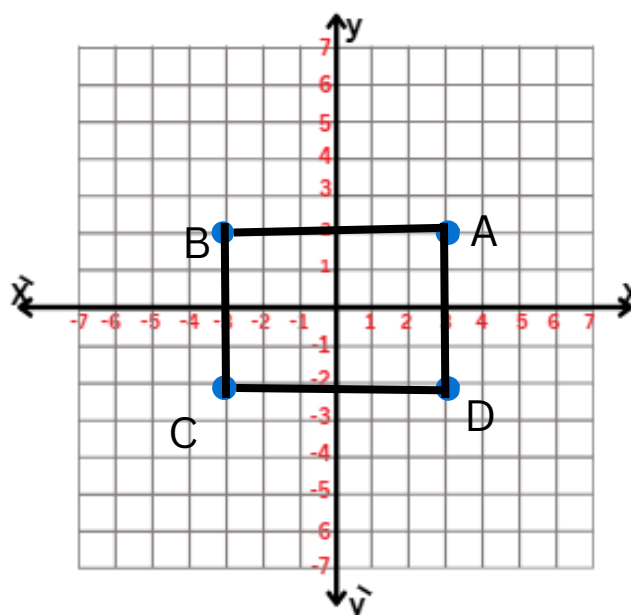
$$1\% \text{ of } 192 = 1.92 \text{ L.E}$$

$$5\% = 9.6 \text{ L.E}$$

$$\text{The price after delivery} = 192 + 9.6 = 201.6 \text{ L.E}$$

Q1:-**1** C**2** D**3** B**4** B**5** B**6** D**7** B**8** D**9** BQ2:-**1** 2 units

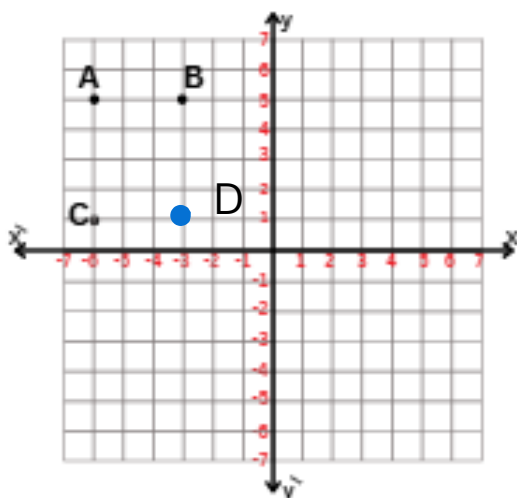
2 C(2,1), first quadrant
D(-2,1), second quadrant

**3** Rectangle

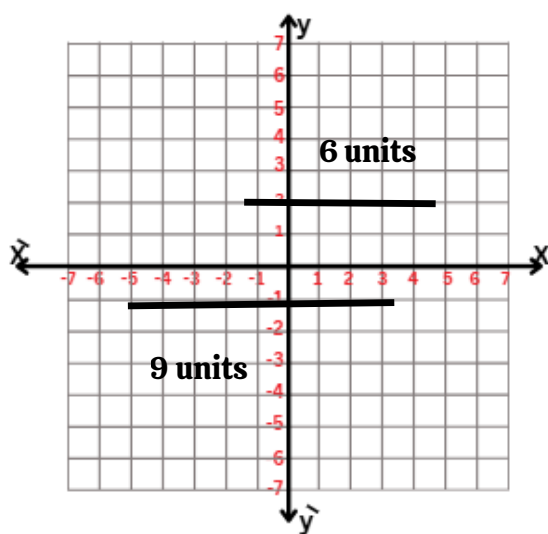
4

(1,5)

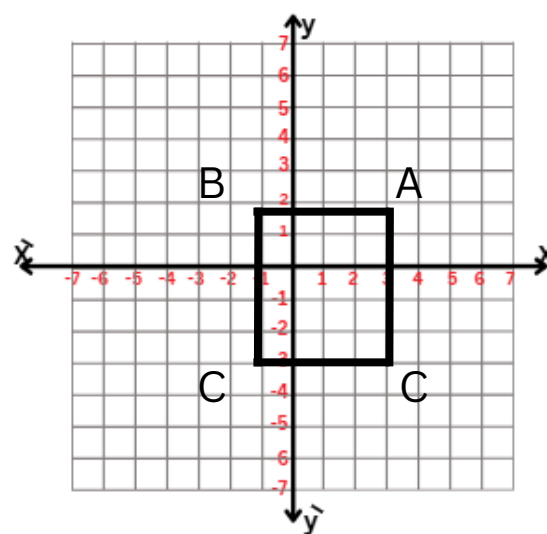
5



6



7



Rectangle

Q1:-**1** C**2** C**3** B**4** B**5** A**6** D**7** B**8** B**9** DQ2:-**1** $h = 5 + 2 = 7 \text{ cm}$

$$\text{Area} = \frac{1}{2} \times b \times h = \frac{1}{2} \times 7 \times 5 = 17.5 \text{ cm}^2$$

2 $\text{side} = p \div 4 = 20 \div 4 = 5 \text{ cm}$

$$\text{Area} = S \times H = 5 \times 3.4 = 17 \text{ cm}^2$$

3 $\text{Side} = \frac{2 \times \text{Area}}{H} = \frac{2 \times 24}{4} = 12 \text{ cm}$ **4** $\text{side} = p \div 4 = 32 \div 4 = 8 \text{ cm}$

$$\text{Area} = B \times H = 8 \times 5.2 = 41.6 \text{ cm}^2$$

5 **Parallelogram**

$$\text{Area} = B \times H = 12 \times 10 = 120 \text{ cm}^2$$

Rectangle

$$\text{Area} = L \times W = 14 \times 8 = 112 \text{ cm}^2$$

The area of Parallelogram is bigger

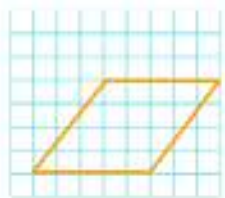
6 $Area = \frac{1}{2}(b_1 + b_2) \times h$

$$Area = \frac{1}{2}(8 + 5) \times 6 = 39cm^2$$

7



A trapezium Or A rhombus



$$Area = \frac{1}{2}(8 + 3) \times 4 = 22cm^2$$

$$Area = S \times H = 5 \times 4 = 20cm^2$$

The area of Rhombus is smaller

Q1:-**1** D**2** A**3** C**4** B**5** D**6** D**7** B**8** C**9** BQ2:-**1** Area = $2x(Lw + Lh + wh)$

$$\text{Area} = 2(14.3 \times 10.2 + 14.3 \times 8 + 10.2 \times 8)$$

$$= 2x(145.86 + 114.4 + 81.60)$$

$$= 2x341.86 = 683.72 \text{ square centimeter}$$

2 Area = $2 \times 6 \times 12 + 6 \times 6$

$$\text{Area} = 144 \times 36 = 180 \text{ square centimeter}$$

3 Area = $2x(Lw+Lh+wh)$

$$\text{Area} = 2(15.4 \times 4 + 15.4 \times 8.5 + 4 \times 8.5)$$

$$= 2x(61.6 + 130.9 + 34)$$

$$= 2x226.5 = 453 \text{ square centimeter}$$

$$V = L \times W \times H$$

$$= 15.4 \times 4 \times 8.5 = 523.6 \text{ cubic centimeters}$$

4 $\text{Area} = 5 \times 12 + 10 \times 5 + 10 \times 13 + 10 \times 12$
 $= 60 + 50 + 130 + 120 = 360$ square centimeters

5 $V = L \times W \times H$
 $= 6.5 \times 6.5 \times 10 = 422.5$ cubic centimeters

6 $\text{New volume} = 8 \times 48 = 384$ cubic centimeters

7 Estimation $V = 7 \times 4 \times 8 = 84$ cubic centimeters

Actual $V = 7.2 \times 4.1 \times 8.3 = 245.016$ cubic centimeters

حمل الآن

مجاناً وحصرياً

المراجعة رقم (3)

الترم الثاني



1. Choose the correct answer:

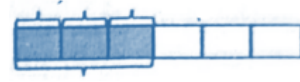
- 1 The division operation represented by the opposite model is

a. $3 \div \frac{1}{6}$

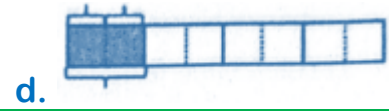
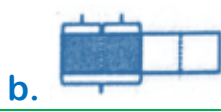
b. $\frac{3}{6} \div 3$

c. $\frac{3}{5} \div 3$

d. $\frac{1}{6} \div 3$



- 2 The model that represents the division problem: $1 \div \frac{1}{2}$ is



- 3 The quotient of $(8 \div \frac{2}{3})$ is

a. 24

b. $8 \frac{2}{3}$

c. 12

d. 26

- 4 The quotient of $(\frac{5}{8} \div 2)$ is

a. 10

b. $\frac{4}{5}$

c. $\frac{5}{16}$

d. 16

- 5 If 6 is a $\frac{1}{4}$ of a number, then the number is

a. 4

b. 6

c. 18

d. 24

- 6 The numerical expression that expresses how many $\frac{1}{7}$ in $\frac{9}{14}$ is

a. $\frac{1}{7} \div \frac{9}{14}$

b. $\frac{9}{14} \div \frac{1}{7}$

c. $\frac{1}{7} \times \frac{9}{14}$

d. $\frac{9}{14} - \frac{1}{7}$

- 7 If $\frac{1}{8}$ of a number is 40, then the number is

a. 40

b. 320

c. 24

d. 16

- 8 If $\frac{2}{7}$ of a number is 5, then the number is

a. 5

b. 7

c. 35

d. 17.5

- 9 The number of equal groups of $\frac{1}{4}$ in the fraction $\frac{6}{8}$ is groups

a. 2

b. 3

c. 4

d. 5

- 10 $\frac{1}{4}$ of 12 =

a. 3

b. $\frac{1}{3}$

c. 48

d. $\frac{1}{48}$

- 11 Fourth of 32 =

a. 4

b. $\frac{1}{4}$

c. 8

d. $\frac{1}{8}$



12 The reciprocal of the fraction $\frac{4}{3}$ is

a. 4

b. $\frac{1}{4}$

c. $\frac{3}{4}$

d. $\frac{1}{3}$

13 The reciprocal of the fraction $\frac{9}{18}$ in its simplest form is

a. $\frac{1}{9}$

b. $\frac{1}{18}$

c. $\frac{1}{2}$

d. 2

14 The reciprocal of the fraction $1\frac{3}{5}$ is

a. $\frac{3}{5}$

b. $\frac{8}{5}$

c. $1\frac{5}{3}$

d. $\frac{5}{8}$

15 $\times \frac{5}{2} = 1$

a. 1

b. $1\frac{1}{2}$

c. $\frac{2}{5}$

d. $\frac{5}{2}$

16 $\frac{3}{5} \div \dots = 1$

a. 1

b. $\frac{5}{3}$

c. $\frac{5}{5}$

d. $\frac{3}{5}$

17 $2 \div \frac{1}{3} = 2 \times \dots$

a. $\frac{1}{3}$

b. 6

c. $\frac{1}{6}$

d. 3

18 The least common denominator for the two fractions $\frac{3}{8}$, $\frac{1}{3}$ is

a. 24

b. 21

c. 18

d. 15

19 The least common denominator (LCD) for the two fractions $\frac{1}{4}$ and $\frac{2}{9}$ is

a. 24

b. 16

c. 36

d. 18

20 $3.4 \times 0.02 = \dots$

a. 6.8

b. 0.68

c. 0.068

d. 0.0068

21 The multiplication operation 1.5×2.3 is equivalent to

a. $\frac{15}{100} \times \frac{23}{100}$

b. $\frac{15}{10} \times \frac{23}{10}$

c. $\frac{15}{100} \times \frac{23}{10}$

d. $\frac{15}{10} \times \frac{23}{100}$

22 $3.2 \div 0.04 = \dots$

a. 8

b. 0.8

c. 80

d. 800

23 To carry out the division operation $6.25 \div 0.025$ we multiply both of the dividend and the divisor by

a. 10

b. 100

c. 1,000

d. 250



- 24 Comparison between two quantities from the same kind and the same units is called
a. The rate b. The ratio c. The numerator d. The denominator
- 25 Comparison between two quantities from different kind and different units is called
a. The rate b. The ratio c. The numerator d. The denominator
- 26 A ratio that compares one quantity to one unit of a second quantity is called a
a. Conversion factor b. Place value c. Unit rate d. Volume
- 27 Ratios have the same value after each of them is put in its simplest form are called
a. Rate b. Ratio c. Equivalent ratios d. Expanded form
- 28 The second term of the ratio $\frac{3}{4}$ is
a. 3 b. 4 c. 3×4 d. $3 + 4$
- 29 The ratio of the number of circles to the number of squares is
a. 2:3 b. 3:2 c. 3:5 d. 2:5
- 30 The ratio between two side lengths of a square is :
a. 1 : 4 b. 2 : 4 c. 1 : 2 d. 1 : 1
- 31 If the ratio between two numbers is 2 : 5 and the smaller number is 10, then the greater number is
a. 25 b. 2.5 c. 7 d. 12
- 32 $\frac{18}{24}$ in the simplest form =
a. $\frac{3}{2}$ b. $\frac{3}{4}$ c. $\frac{4}{3}$ d. $\frac{9}{12}$
- 33 $\frac{20}{30}$ in the simplest form =
a. $\frac{3}{2}$ b. $\frac{4}{6}$ c. $\frac{2}{3}$ d. $\frac{10}{15}$
- 34 To simplify the ratio whose two terms are 2, 10 we divide both terms by their greatest common factor, which is
a. 5 b. 2 c. 10 d. 20



35 If $\frac{18}{27}$ and $\frac{A}{3}$ are equivalent ratios, then the value of A is

- a. 4 b. 2 c. 8 d. 9

36 If $\frac{3}{7} = \frac{A}{35}$, then A =

- a. 5 b. 9 c. 12 d. 15

37 If 9 to 10 is equivalent to 72:B , then B =

- a. 8 b. 80 c. 70 d. 7

38 If Ammar pays 100 pounds to buy 4 books, then the total amount he will pay to buy 3 books of the same kind is pounds.

- a. 25 b. 75 c. 50 d. 150

39 The ratio that is not equivalent to $\frac{2}{3}$ is

- a. $\frac{6}{12}$ b. $\frac{4}{6}$ c. $\frac{6}{9}$ d. $\frac{8}{12}$

40 Which of the following are equivalent ratios?

- a. $\frac{1}{5}, \frac{2}{6}$ b. $\frac{3}{5}, \frac{6}{9}$ c. $\frac{4}{10}, \frac{16}{40}$ d. $\frac{1}{4}, \frac{4}{5}$

41 The next ratio in the following pattern: $\frac{3}{5}, \frac{6}{10}, \dots$ is

- a. $\frac{1}{6}$ b. $\frac{7}{15}$ c. $\frac{9}{15}$ d. $\frac{1}{5}$

42 The missing number in the pattern $\frac{1}{2}, \frac{2}{4}, \dots$ is

- a. $\frac{1}{6}$ b. $\frac{7}{15}$ c. $\frac{9}{15}$ d. $\frac{1}{5}$

43 If $\frac{a}{b} = \frac{c}{d}$, then

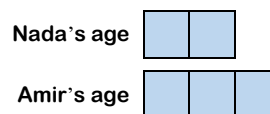
- a. $a \times b = c \times d$ b. $a \times c = b \times d$ c. $a \times d = b \times c$ d. $c \times b = d \times b$

44 In the opposite tape diagram, ratio of the number of boys to the number of girls is



- a. 2 to 5 b. 5 to 2 c. 2 to 7 d. 5 to 7

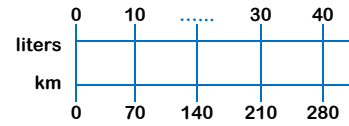
45 From the opposite model, if Nada's age is 10 years, then Amir's age is years



- a. 12 b. 18 c. 15 d. 9

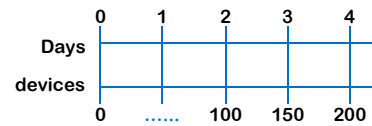


- 46** From the opposite double number line:
The number of liters of gasoline needed to travel a distance of 140 km = liters



a. 10 b. 20 c. 15 d. 25

- 47** From the opposite double number line, the air condition devices that the factory produces in a day is



a. 15 b. 20 c. 25 d. 50

- 48** The sentence that expresses a unit rate among the following is

a. 3 pens for every student b. 6 pieces of candy for every 3 students
c. 6 km for every 3 minutes d. 4 loaves of bread for every 4 students

- 49** The unit rate that expresses “Hazem covers by his bicycle 40 m per two minutes” is

a. $\frac{40 \text{ meters}}{2 \text{ minutes}}$ b. $\frac{20 \text{ meters}}{1 \text{ minutes}}$ c. $\frac{80 \text{ meters}}{4 \text{ minutes}}$ d. $\frac{60 \text{ meters}}{3 \text{ minutes}}$

- 50** 30 L.E. for 5 kg, then the cost of 30 kg is L.E.

a. 5 b. 30 c. 90 d. 180

- 51** A library offers 4 notebooks with a cost of 20 pounds, and 7 notebooks of the same kind with a cost of 49 pounds. The best buying price is pounds for each notebook

a. 10 b. 9 c. 5 d. 7

- 52** Which of the following offers the best price for purchase?

a. 55 pounds for 11 eggs b. 140 pounds for 20 eggs
c. 180 pounds for 30 eggs d. 55 pounds for 12 eggs

- 53** The ratio that compares two equal quantities expressed in different units within the same measurement system is. called

a. Place value b. Unit rate c. Equivalent ratios d. Conversion factor

- 54** 1 m = cm

a. 10 b. 100 c. 1,000 d. 0.001

- 55** 1 ton = kg

a. 10 b. 100 c. 1,000 d. 0.001



56 1 ml = liter

- a. 10 b. 100 c. 1,000 d. 0.001

57 The conversion factor used to convert from a day to an hour is

- a. $\frac{1 \text{ hour}}{24 \text{ days}}$ b. $\frac{12 \text{ hour}}{1 \text{ days}}$ c. $\frac{24 \text{ hour}}{1 \text{ days}}$ d. $\frac{1 \text{ week}}{7 \text{ days}}$

58 The conversion factor used to convert from milliliters to liters is

- a. $\frac{100 \text{ ml}}{1 \text{ liter}}$ b. $\frac{10 \text{ liter}}{1 \text{ ml}}$ c. $\frac{1 \text{ liter}}{1,000 \text{ ml}}$ d. $\frac{1 \text{ ml}}{10 \text{ liter}}$

59 The conversion factor used to convert from a second to an hour is

- a. $\frac{1 \text{ hour}}{3,600 \text{ sec}}$ b. $\frac{1 \text{ hour}}{60 \text{ sec}}$ c. $\frac{1 \text{ hour}}{30 \text{ sec}}$ d. $\frac{1 \text{ km}}{1,000 \text{ m}}$

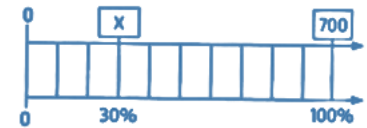
60 The conversion factor used to convert from years to months is

- a. $\frac{1 \text{ year}}{10 \text{ months}}$ b. $\frac{12 \text{ months}}{1 \text{ year}}$ c. $\frac{1 \text{ year}}{1 \text{ months}}$ d. $\frac{1 \text{ months}}{12 \text{ year}}$

61 A milk bottle has a capacity of 2.5 liters, so its capacity in milliliters is

- a. 25 b. 250 c. 2,500 d. 2,050

62 From the opposite double number line, x =



- a. 70 b. 140 c. 210 d. 420

63 $\frac{7}{10} = \dots\dots\dots \%$

- a. 7 % b. 10 % c. 17 % d. 70 %

64 20 % =

- a. $\frac{1}{2}$ b. $\frac{1}{3}$ c. $\frac{1}{4}$ d. $\frac{1}{5}$

65 0.4 = %

- a. 4 b. 40 c. 400 d. 0.04

66 25 % =

- a. $\frac{1}{2}$ b. $\frac{1}{3}$ c. $\frac{1}{4}$ d. $\frac{1}{5}$

67 65 % =

- a. 0.5 b. 0.65 c. 0.75 d. 0.85



68 $30\% = \dots\dots\dots$

- a. 0.2 b. 0.3 c. 0.5 d. 0.6

69 $15\% = 10\% + \dots\dots\dots$

- a. 1% b. 5% c. 10% d. 20%

70 $\frac{1}{2} + 50\% = \dots\dots\dots\%$

- a. 1 b. 100 c. 55 d. 50

71 $\frac{1}{2} + 50\% = \dots\dots\dots$

- a. 1 b. 100 c. 55 d. 50

72 $1 - (15\% + 55\%) = \dots\dots\dots$

- a. 30 b. 69% c. 0.3 d. 70%

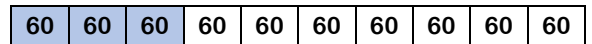
73 If 50% of the number z equals 200, then z = $\dots\dots\dots$

- a. 400 b. 100 c. 300 d. 250

74 If the percent of boys in a school is 52%, then the percent of girls is $\dots\dots\%$

- a. 100 b. 52 c. 48 d. 50

75 From the opposite model, 30% of 600 is $\dots\dots\dots$



- a. 240 b. 180 c. 120 d. 60

76 30% of $\dots\dots\dots = 210$

- a. 400 b. 500 c. 600 d. 700

77 1% of 200 pounds is equal to $\dots\dots\dots$ pounds

- a. 0.02 b. 0.2 c. 2 d. 20

78 If 18% of a number equals 36, then the number is $\dots\dots\dots$

- a. 100 b. 200 c. 300 d. 400

79 In a class of 50 students, 10% of them like swimming. The number of students who like swimming is $\dots\dots\dots$ students

- a. 5 b. 10 c. 40 d. 60

80 The percentage represents 20 pounds of 400 pounds is $\dots\dots\dots$

- a. 5% b. 10% c. 15% d. 20%



- 81 Hoda has 20 oranges, 5 of them are rotten, then the percentage of rotten oranges is
a. 5 % b. 10 % c. 15 % d. 25 %
-
- 82 The y-coordinate in ordered pair (3 , 7) is
a. 7 b. 3 c. 73 d. 37
-
- 83 The x-coordinate for the origin point is
a. (0 , 0) b. 1 c. 0 d. (0 , 1)
-
- 84 The point lies on the x-axis
a. (2 , 0) b. (2 , 3) c. (1 , 1) d. (0 , 2)
-
- 85 The point lies on the y-axis
a. (0 , - 3) b. (- 3 , 0) c. (- 4 , - 3) d. (4 , 3)
-
- 86 The point (5, b) lies on the x-axis, then the value of b is
a. 0 b. 1 c. 5 d. - 5
-
- 87 The point (a, 4) lies on the y-axis, then the value of a is
a. 0 b. 1 c. 2 d. 4
-
- 89 If the point (a, b) lies on the x-axis, then the symbol whose value equals zero is
a. A b. B c. Both d. Neither of them
-
- 90 The two points (5, 8) and (5, 3) lie on
a. One vertical line b. One horizontal line
c. Both of two lines d. None of the previous
-
- 91 Which of the following ordered pairs does not lie on the same horizontal line with the point A (3 , 2)?
a. (7 , 2) b. (5 , 2) c. (2 , 4) d. (0 , 2)
-
- 92 The point (6 , - 5) lies in quadrant
a. First b. Second c. Third d. Fourth
-
- 93 The point (- 2.5 , 1.25) lies in
a. First b. Second c. Third d. Fourth
-



- 94 Which of the following points lies in the Third quadrant?
a. (5 , 4) b. (5 , - 4) c. (- 4 , 5) d. (- 5 , - 4)
- 95 If the point (- 3, s) lies in the Third quadrant, then the possible value of s is
a. 0 b. - 5 c. 4 d. 2
- 96 All of the following points lie in the fourth quadrant except: the point
a. (2 , - 1.5) b. (1.5 , - 1.5) c. (- 2.25 , - 2.5) d. (2 , - 2.5)
- 97 The Reflection of the point (- 4,7) in y-axis results the point
a. (- 4 , 7) b. (4 , - 7) c. (- 4 , - 7) d. (4 , 7)
- 98 The Reflection of the point (- 4, 7) in x-axis results the point
a. (- 4 , 7) b. (4 , - 7) c. (- 4 , - 7) d. (4 , 7)
- 99 Reflection of the point $(2\frac{1}{4}, \frac{1}{2})$ in x-axis produces the point
a. $(2\frac{1}{4}, \frac{1}{2})$ b. $(2\frac{1}{4}, -\frac{1}{2})$ c. $(\frac{1}{4}, -2\frac{1}{2})$ d. $(\frac{1}{4}, 2\frac{1}{2})$
- 100 The point (0, 4) lies on the y-axis, and its reflection in the x-axis lies in the
a. X-axis b. Second quadrant c. Y-axis d. Fourth quadrant
- 101 The distance between the two number 4 and - 5 on the number line is ... units
a. 1 b. - 1 c. 9 d. 1
- 102 The distance between the two numbers - 9 and -6 on the number line equals units
a. 9 b. 3 c. 15 d. 6
- 103 The point (3 ,4) is located at distance units from x-axis
a. 3 b. 4 c. - 3 d. - 4
- 104 The distance between the point(- 4 , 6) and the y-axis is
a. 0 b. 6 c. 4 d. - 4
- 105 The distance between the two points (- 3, 7) and (- 3, 4) is units
a. 3 b. 0 c. 1 d. 7
- 106 If the points A(4 , - 4) , B(4 , - 2), C(- 2 , - 2), D(- 2 , - 4) are vertices of a rectangle, then AD = units.
a. 4 b. 3 c. 2 d. 6



- 107 If the distance between the two numbers A and 4 on the given number line is 7 units, then A =

a. 4 b. - 3 c. 7 d. - 7



- 108 If the distance between the two numbers A and 4 on the given number line is 7 units, then A =

a. 3 b. - 3 c. 7 d. - 7



- 109 The distance between the two points E and F on the given number line is

a. $F - E$ b. $F + E$ c. $|E| + |F|$ d. $|F| - |E|$



- 110 The point that can be added to the points (2, 1), (2, -1), (-2, -1) to form a rectangle is

a. (1, 1) b. (1, - 1) c. (2, - 1) d. (- 2, 1)

- 111 The point can be enclosed to form a rectangle using the points: (3, - 6), (4, 1), (4, - 6) is

a. (3, 1) b. (1, - 6) c. (4, - 6) d. (1, 3)

- 112 The points (2, 3), (2, - 3), (4, - 3), (4, 3) can form a

a. Square b. Rectangle c. Trapezium d. Right angled triangle

- 113 A rhombus of area 60 cm^2 and its height 10 cm, then its side length = cm

a. 6 b. 600 c. 0.6 d. 60

- 114 A parallelogram has a base length 11 cm and the corresponding height to this base is 7 cm. Then its area is

a. 77 cm b. 77 cm^2 c. 18 cm d. 18 cm^2

- 115 The height of a parallelogram is 10 cm and its area is 120 cm^2 . Then the length of the corresponding base to this height is

a. 12 cm b. 12 cm^2 c. 1.200 cm^2 d. 1.200 cm

- 116 Area of A right-angled triangle is

a. $A = b \times h$ b. $A = \frac{1}{2} \times b \times h$ c. $A = 2 \times b \times h$ d. $A = b \div h$

- 117 Number of Altitudes (heights) of the right angled triangle is

a. 1 b. 2 c. 0 d. 3



118 Altitudes of an obtuse triangle intersect at a single point which lies the triangle

- a. Acute b. On c. Inside d. Outside

119 Which of the following represents the area of a triangle?

- a. 28 cm b. 28 cm^2 c. 28 cm^3 d. 22.8 cm

120 Which of the following represents the area of the given triangle?



- a. 28 cm b. 6 cm^2 c. 56 cm^3 d. 22.8 cm

121 A triangle has a base length 6 cm and the corresponding height to this base is 4 cm. Then its area is

- a. 24 cm b. 12 cm c. 24 cm^2 d. 12 cm^2

122 A triangle has a base length of 25 cm and the corresponding height is 10 cm. Then its area is

- a. 125 cm b. 250 cm^2 c. 125 cm^2 d. 35 cm^2

123 A triangle has an area of 30 cm^2 and a height of 10 cm. Then the length of its base is

- a. 6 b. 300 c. 0.3 d. 150

124 A triangle has an area of 24 cm^2 and a height of 8 cm. Then the length of its base is

- a. 6 b. 96 c. 192 d. 32

125 The solid that consists of two triangular bases and 3 rectangular faces is called a

- a. Cube b. Cuboid c. Prism d. Square pyramid

126 Which of the following mathematical expressions can he used to find the surface area of a cuboid?

- a. $A = 2(Lw + Lh + wh)$ b. $A = 2wLh$ c. $A = w + L + h$ d. $A = wLh \div 2$

127 A cube whose one face has an area of 5 cm^2 . Then its total surface area is equal to cm^2

- a. 10 b. 20 c. 30 d. 50

128 A square pyramid has a base area of 30 cm^2 and the area of one of its faces is 10 cm^2 . Then its surface area is

- a. 40 b. 70 c. 55 d. 100



129 A cuboid has dimensions of 5 cm, 3 cm, and 4 cm. Its volume is cm^3
a. 12 b. 60 c. 17 d. 19

130 A cuboid has a volume 400 cm^3 , a base length 10 cm, and a width 5 cm. Its height is cm
a. 8 b. 20 c. 50 d. 80

131 If the volume of a cuboid is 180 cm^3 and its height is 10 cm, then its base area is cm^2
a. 6 b. 18 c. 30 d. 15

132 If we doubled the width of a cuboid three times, its volume will be multiplied by
a. Two times b. Three times c. eight times d. Nine times

133 A cuboid has a volume of 30 cm^3 . If both its length and height are doubled, its new volume will be cm^3
a. 60 b. 90 c. 120 d. 240

134 A cuboid has a volume 50 cm^3 . Find its volume when two of its dimensions are doubled cm^3
a. 50 b. 100 c. 150 d. 200

2. Answer the following:

1 Find the quotient in the simplest form:

a. $\frac{3}{7} \div 2 = \dots\dots$	b. $\frac{2}{3} \div 3 = \dots\dots$	c. $2 \div \frac{3}{5} = \dots\dots$
d. $\frac{3}{7} \div \frac{1}{14} = \dots\dots$	e. $\frac{3}{5} \div \frac{1}{10} = \dots\dots$	f. $\frac{1}{4} \div \frac{2}{8} = \dots\dots$

2 Write the multiplication problem used to check the solution for the problem:

a. $\frac{3}{6} \div \frac{1}{6} = 3$	b. $5 \div \frac{1}{5} = 25$
---	------------------------------------

3 If 8 is $\frac{1}{3}$ of a number. What is that number?

.....

4 The number which $\frac{1}{5}$ is of the number 10

.....

5 The number which $\frac{1}{7}$ of it equals 4

.....

6 How many $\frac{1}{3}$ in the number 5?

.....



- 7 4 friends share $\frac{4}{5}$ of a pizza. Find the share of each of them
- 8 Shaimaa has 4 liters of juice and wants to divide it into bottles with a capacity of $\frac{2}{3}$ liters. Find the number of bottles needed
- 9 Youssef bought $\frac{9}{10}$ kg of clay and wants to divide it. into pieces, where the mass of each piece is $\frac{3}{5}$ kg. Find the number of pieces that can be made.
- 10 Find the value of each of the following:
 a. $n \times \frac{5}{8} = \frac{1}{16}$ b. $\frac{5}{6} \times n = \frac{5}{12}$
- 11 Find the result:
 a. $2.31 \times 0.23 = \dots$ | b. $12 \times 3.6 = \dots$ | c. $5.3 \times 4.2 = \dots$ | d. $1.7 \times 0.13 = \dots$
- 12 Find the quotient:
 a. $15 \div 3 = \dots$ | b. $0.35 \div 0.007 = \dots$ | c. $3.2 \div 0.32 = \dots$ | d. $3.6 \div 1.8 = \dots$
- 13 The price of one meter of cloth is 12.5 L.E. Find the price of 2.5 meters
- 14 Find in two different forms, the ratio whose first term is 9 and its second term is 11
- 15 A class has 35 boys and 15 girls. Write the ratio in its simplest form:
 a. Ratio of the number of boys to the number of girls
 b. Ratio of the number of girls to the number of students in the class
 c. Ratio of the number of boys to the number of students in the class
- 16 In the opposite tape diagram: If the number of boys is 40, find the number of girls
- | | | | | | |
|-------|---|---|---|---|---|
| boys | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ccc;"></div> | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ccc;"></div> | | | |
| girls | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ccc;"></div> | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ccc;"></div> | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ccc;"></div> | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ccc;"></div> | <div style="display: inline-block; width: 20px; height: 20px; background-color: #ccc;"></div> |
- 17 If the ratio of the number of oranges to the number of apples is 2 to 3, how many oranges are there if the number of apples is 18?
- 18 A car consumes 6 liters of gasoline to cover a distance of 30 kilometers. What is the distance the car will cover when consuming 2 liters?
- 19 A runner runs a distance of 5 kilometers per hour. What distance will he run in 4 hours if their speed remains the same?
- 20 If the ratio between what Ali saved to what Mona saved was 2 : 1 and the total money that they saved is 12 pounds. Find what each one saved



- 21** If the ratio between the number of boys and the number of girls is 7:6 and the number of girls is 42, then find:

a. The number of boys

b. The total number of pupils

- 22** Complete the following table keeping the given ratio:

No. of squares	No. of circles	Total no. of shapes
6	4	
.....		

- 23** Put the following ratios in simplest form:

a. $\frac{9}{15} = \dots\dots\dots$

b. $\frac{8}{32} = \dots\dots\dots$

c. $\frac{6}{18} = \dots\dots\dots$

- 24** Find an equivalent ratio for each ratio given below:

a. $\frac{5}{8} = \dots\dots\dots$

b. $\frac{4}{7} = \dots\dots\dots$

- 25** Are the two ratios $\frac{4}{12}$ and $\frac{10}{30}$ equivalent?

- 26** Are the two ratios $\frac{12}{24}$ and $\frac{7}{14}$ equivalent?

- 27** Are the two ratios $\frac{3}{6}$ and $\frac{30}{90}$ equivalent?

- 28** Find the missing value:

a. $\frac{7}{11} = \frac{21}{B}$ $\frac{7}{11} = \frac{21}{B}$

b. $\frac{2}{x} = \frac{18}{27}$ $\frac{2}{x} = \frac{18}{27}$

- 29** If you know that Ibrahim solves 4 problems in 7 minutes at a constant rate,

a. what is the number of minutes Ibrahim takes to solve 12 problems?

b. what is the number of problems Ibrahim solved in 49 minutes?

- 30** Haneen uses 15 spoons of butter for every 3 loaves of bread she bakes. Calculate the number of spoons of butter she needs to make 5 loaves of the same type of bread

- 31** Sara needs 2 cups of flour for every 1 cup of milk to make a cake.

a. Calculate the number of cups of milk required if she uses 4 cups of flour

b. Calculate the number of cups of flour that can be used if she has 3 cups of milk?



- 32 A candy factory produces 150 pieces of candy per hour. Calculate the number of candy pieces the factory produces in 8 hours
.....
- 33 540 km for every 5 hours. Find the unit rate
.....
- 34 Find the unit rate of each of the following:
 a. 720 pounds for 6 kilograms
 b. 30 kilometers per 5 hours
 c. 320 devices per 8 hours
 d. Yasmin's studying rate of 36 pages in 4 hours
- 35 Determine the best price for 10 notebooks for 50 pounds or 9 notebooks for 36 pounds
.....
- 36 Mona bought vegetables with a mass of 6.5 kilograms. Find the mass of the vegetables in grams
.....
- 37 Amal takes 15.5 minutes to make a pizza. Calculate the time Amal takes in seconds
.....
- 38 Amal spends 15.5 minutes working on her computer. Calculate the time she spends in seconds
.....
- 39 If the height of Hazem is 1.4 meters. Calculate his height in centimeters
.....
- 40 Convert 600 cm to meters using the conversion factor
.....
- 41 A speed of a car is 180 kilometers per hour. Convert its speed to meters per minute
.....
- 42 Convert the speed 3.5 km per hour into meters per second
.....
- 43 Convert each of the following to percentage:

a. $0.9 = \dots\dots\dots$	b. $0.45 = \dots\dots\dots$	c. $0.379 = \dots\dots\dots$
d. $\frac{3}{20} = \dots\dots\dots$	e. $\frac{7}{25} = \dots\dots\dots$	f. $\frac{6}{10} = \dots\dots\dots$
- 44 Write the following percentages as a fraction in its simplest form:

a. $12\% = \dots\dots\dots$	b. $60\% = \dots\dots\dots$	c. $70\% = \dots\dots\dots$
-----------------------------	-----------------------------	-----------------------------
- 45 Write the following percentages as a decimal:

a. $3.4\% = \dots\dots\dots$	b. $9\% = \dots\dots\dots$	c. $27\% = \dots\dots\dots$
------------------------------	----------------------------	-----------------------------
- 46 If the success rate in a school is 85 % calculate the failure rate.
.....



- 47 What is the value of 40% of 300 pounds?
- 48 What is the amount that represents 12 % of 300 pounds?
- 49 What is the value of 60 % of 150 pounds?
- 50 You got 7 marks out of 10 marks in the Math subject. What is the percentage that the marks you got represent?
- 51 A class has 40 students. 60% of them prefer football. What is the number of students who prefer football?
- 52 A class has 40 students, 10 % of them like swimming. What is the number of students who like swimming?
- 53 Mohamed distributed 30 cake pieces among his friends, and this number represents 60 % of the total number of cake pieces he had with him. What is the total number of cake pieces Mohamed had?
- 54 if the number of pupils in a school is 700. One day 10 % of them were absent, find the number of the present pupils that day
- 55 The price of a T.V is 8,500 L.E with discount 10 %. Calculate the discount value
- 56 The price of a mobile phone before a discount is 2,400 L.E. if the discount is 20 %. What is its price after the discount?
- 57 A dinner bill is 400 L.E. there is 10 % tax. Calculate the bill after adding the tax
- 58 Find the x-coordinate of the ordered pair (7 , 5)
- 59 Find the y-coordinate of the ordered pair (- 3 , - 2)
- 60 State the quadrant in which the point (2 , - 5) lies
- 61 State the quadrant in which the point (- 3 , 4) lies
- 62 The point (- 3 , 4.5) is the image of the point (3, 4.5) by reflection in which axis?



- 63 The point $(-3.5, -5)$ is the image of the point $(3.5, -5)$ by reflection in which axis?

- 64 Find the distance between the two points $(-1, 2)$, $(6, 2)$

- 65 Find the distance between the two points $(3, 2)$, $(3, -3)$

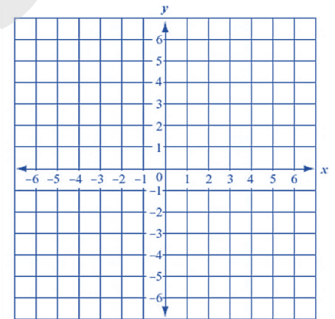
66



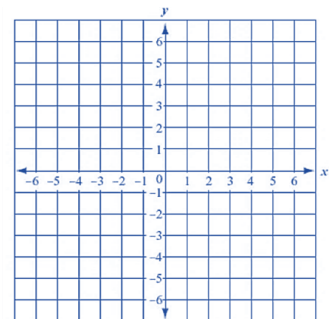
- The distance between points A and E
- The distance between points E and F
- The distance between points A and B
- The distance between points E and D
- The distance between points A and D
- The distance between points B and F

- 67 Determine the following points on the coordinate: $(-3, -4)$, $(2, -4)$, $(2, 0)$, $(-3, 0)$

Connect them to get a geometric shape and write its name



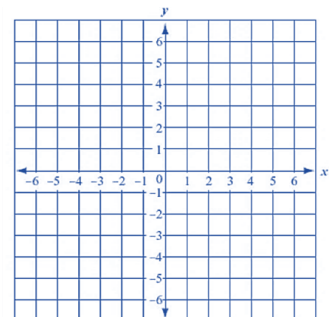
- 68 Using the coordinate plane, draw a square ABCD where one of its vertices is the point $A(2, 2)$ and its side length is 3 units. Then, write the coordinates of the other three vertices



- 69 Determine the following points on the coordinate plane, and then complete:

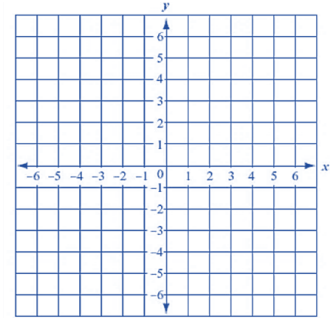
$A(-5, 3)$, $B(-5, -2)$, $C(4, -2)$

- The distance between the two points A and B is
- The distance between the two points C and B is
- The total distance starting from point A to point B and then moving from point B to point C is

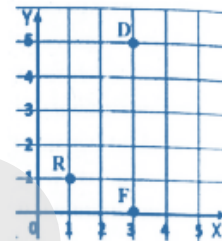




- 70** Plot the points A (2 , 4), B (2 , 1), C (5 , 4)
Join them and find the image of each one
by reflection across the y-axis



- 71** Using the opposite coordinate plane, write the
ordered pair that represents the points: F, R, D
F
R
D



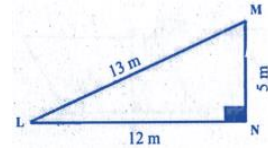
- 72** A parallelogram has a base length 11 cm. and the corresponding height to
this base is 6 cm. Find its area.
- 73** A parallelogram has a base length of 10 cm and an area of 40 cm^2 . Find the
length of the corresponding height to this base
- 74** A parallelogram has two bases of lengths 16 cm and 12 cm and its greatest
height is 6 cm. Find its area and the smaller height
- 75** A parallelogram has an area of 48 cm^2 and the length of its smaller base is
6 cm. Find the length of its greater height
- 76** A rhombus has a side length 12 cm and a height of 5 cm. Find its area
- 77** A triangle has a base length 14 cm and the corresponding height is 7 cm.
Find its area
- 78** A triangle has a base length of 4.2 cm and the corresponding height is 2.6
cm. Find its area
- 79** A triangle half of its height is 3 cm, and its base length is 8 cm. Find its area
- 80** A triangle has an area, of 32 cm^2 and a height of 8 cm. Find the length of its
base
- 81** A triangle has a base length of 10 cm and an area of 35 cm^2 . Find the
length of the corresponding height to this base



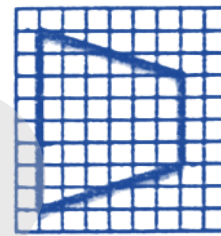
- 82** An iron cube-shaped box is to have its outer surface painted. If the length of its edge is 3 meters, calculate its surface area

- 83** A door is in the shape of a cuboid with a length 100 cm, a width of 80 cm, and a thickness of 5 cm. Calculate its surface area

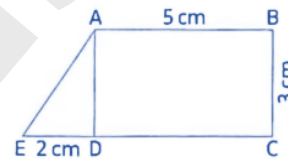
- 84** Find area of triangle:



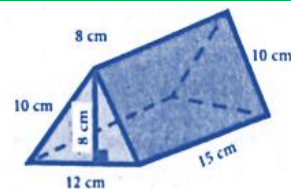
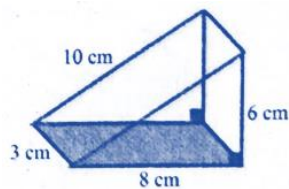
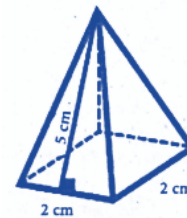
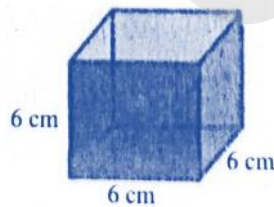
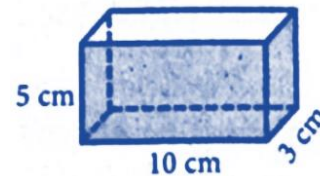
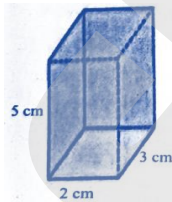
- 85** Find the area of the opposite figure:



- 86** a. Area of rectangle ABCD = cm^2
b. Area of triangle ADE = cm^2
c. Area of trapezium = cm^2



- 87** Calculate the surface area of the solids in the following figures:



- 88** A cuboid has three dimensions: 6 cm, 5 cm, and 4 cm. Calculate its volume



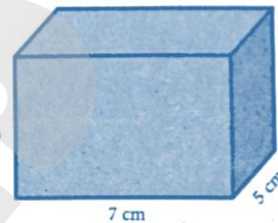
89 A cuboid has a base area of 100 m^2 and a height of 4 m. Calculate its volume.

90 A cuboid has a volume of 200 cm^3 . Find its volume when one of its dimensions is doubled.

91 A cuboid has dimensions: 1 m , 2 m and 2.5 m. Find its volume if its length is doubled?

92 A cuboid has dimensions: 4 cm , 1.5 cm and 5 cm. Find its volume if its three dimensions are doubled

93 If the volume of the given cuboid is 350 cm^3 , find the unknown dimension



حمل الآن

مجاناً وحصرياً

المراجعة رقم (4)

الترم الثاني



Q1: Choose the correct answer

1 The distance between the point (0, -4) and the origin point is units

- (a) 0 (b) -4 (c) 4 (d) 8

2 The number of heights of any triangle is

- (a) 3 (b) 2 (c) 1 (d) 0

3 30 L.E for 5 kg, then the cost of 30 kg is L.E

- (a) 5 (b) 30 (c) 90 (d) 180

4 $\div 2.15 = 1,200 \div 215$

- (a) 120 (b) 12 (c) 1.2 (d) 1200

5 2.3 km = meters

- (a) 2300 (b) 230 (c) 23 (d) 2.3

6 $\frac{3}{8} \times \dots = 1$

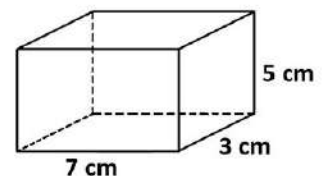
- (a) $\frac{3}{8}$ (b) 1 (c) $\frac{8}{5}$ (d) $2\frac{2}{3}$

7 Mazen studies 24 pages in 6 hours, then the unit rate of his study is pages/hour.

- (a) 5 (b) 4 (c) 3.5 (d) 5.5

8 The surface area of the following cuboid is cm^2 .

- (a) 105 (b) 70
(c) 142 (d) 35



9 Point C (-5 , -3) lies on the quadrant.

- (a) first (b) third
(c) second (d) fourth



10 45 % of a litre = mL

- (a) 450 (b) 4500 (c) 45 (d) 0.45

11 If $a : b$ and $c : d$ are equivalent ratios then

- (a) $a \times b = c \times d$ (b) $a \times c = b \times d$ (c) $a \times d = b \times c$ (d) $a + d = b + c$

12 If $25 \times 33 = 825$, then $0.25 \times 3.3 = \dots\dots\dots$

- (a) 82.5 (b) 8.25 (c) 0.852 (d) 0.825

13 A cubic meter is a unit of

- (a) capacity (b) volume (c) mass (d) length

14 If the y-coordinate of a point is zero, then this point lies

- (a) in 1st quadrant (b) in 3rd quadrant (c) on x-axis (d) on y-axis

15 The reciprocal of the number is $4\frac{2}{5}$

- (a) $\frac{22}{5}$ (b) $4\frac{5}{2}$ (c) $\frac{5}{22}$ (d) $\frac{2}{11}$

16 $5 \times \dots\dots\dots = 1$

- (a) $\frac{25}{5}$ (b) 1 (c) $\frac{1}{5}$ (d) 0

17 The number of heights of a right triangle is

- (a) 0 (b) 1 (c) 2 (d) 3

18 $4.8 \text{ L} \times \frac{\dots\dots\dots}{\dots\dots\dots} = 4800 \text{ mL}$

- (a) $\frac{100 \text{ mL}}{1 \text{ L}}$ (b) $\frac{1,000 \text{ mL}}{1 \text{ L}}$
(c) $\frac{1,000 \text{ L}}{1 \text{ mL}}$ (d) $\frac{1 \text{ L}}{1,000 \text{ mL}}$



19 If $3 : x - 1 = 4 : 8$, then $x = \dots\dots\dots$

- (a) 5 (b) 7 (c) 8 (d) 9

20 5% of LE = 120 LE

- (a) 240 (b) 2400 (c) 1200 (d) 120

21 $225\% = \dots\dots\dots$

- (a) $1\frac{25}{100}$ (b) $2\frac{25}{200}$ (c) $2\frac{1}{4}$ (d) 0.225

22 The surface area of the square pyramid in which the perimeter of its base is 32 cm and the height of each triangular face is 6 cm equals cm^2 .

- (a) 192 (b) 96 (c) 24 (d) 160

23 The greater the absolute value of the x-coordinate, the point is to the y-axis.

- (a) farther (b) closer (c) equal (d) otherwise

24 A water tap is leaking 240 litres of water in one hour, then the rate of leaking = L/min.

- (a) 240 (b) 4 (c) 40 (d) 6

25 The point lies on the x-axis.

- (a) (0, 3) (b) (-1, -4) (c) (-5, 0) (d) (0, -5)

26 A cube with a surface area of 216 cm^2 , Then the edge length is cm.

- (a) 6 (b) 36 (c) 96 (d) 60

27 Merolla spends 120 LE in 4 days, then the rate of what she spends is LE/day.

- (a) 300 (b) 30
(c) 25 (d) 250



- 28 A parallelogram with area 48 cm^2 and base length 6 cm , then it's corresponding height is cm
(a) 9 (b) 8 (c) 7 (d) 8.5
- 29 If the base area of a cuboid is 180 cm^2 , and its height is 9 cm. Then its volume is cm^3 .
(a) 20 (b) 180 (c) 1,620 (d) 810
- 30 5% of = 5
(a) 25 (b) 50 (c) 100 (d) 125
- 31 The point lies on the y-axis.
(a) (0 , 3) (b) (-1, -4) (c) (-5 , 0) (d) (5 , -5)
- 32 A cube with surface area of 150 cm^2 , Then the edge length is cm.
(a) 25 (b) 900 (c) 5 (d) 50
- 33 If $4 : x = 12 : 18$, then $x =$
(a) 6 (b) 9 (c) 15 (d) 18
- 34 The surface area of a cuboid whose dimensions are 6 cm, 4 cm, and 1 cm =
(a) 24 cm^2 . (b) 68 cm^2 . (c) 30 cm^2 . (d) 10 cm^2 .
- 35 If the percentage of success in a school is 76 % , so the percentage of failures is %
(a) 24 (b) 44 (c) 67 (d) 90
- 36 A box without lid in form of cube, its side length 2 m, then its surface area is m^2 .
(a) 4 (b) 24 (c) 20 (d) 12
- 37 Which of the following is a unit rate ?
(a) 40 LE per 2 kg (b) 450 km per 3 hours
(c) 4 spoons of sugar per 2 cups (d) 2 liters per bottle



38 If the three dimensions of a cuboid are doubled, then the ratio between the new volume to the original volume of the cuboid is

- a** 1 : 2 **b** 1 : 4 **c** 1 : 8 **d** 8 : 1

39 360 sec = hour

- a** 60 **b** 10 **c** 3600 **d** 0.1

40 If the original price of a dress is 1,700 LE, then its sale price after apply a discount 20% is

- a** 1,360 **b** 340 **c** 170 **d** 17

41 Any number multiplied by its reciprocal equals

- a** 1 **b** double number **c** same number **d** 0

42 $\frac{3}{6} = \dots\dots\dots \%$

- a** 30 **b** 25 **c** 50 **d** 60

43 The area of the triangle =

- a** $\frac{1}{2}bb$ **b** $\frac{b}{2} \times h$ **c** $\frac{1}{2}hh$ **d** $b \times h$

44 $\frac{6}{7}$ is equivalent to

- a** $\frac{7}{6}$ **b** $\frac{18}{14}$ **c** $\frac{42}{49}$ **d** $\frac{35}{30}$

45 The ratio between the perimeter of a square to its side length is

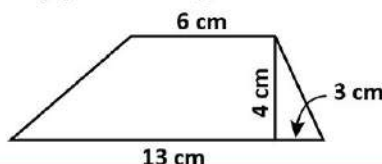
- a** 1 : 4 **b** 4 : 1 **c** 3 : 1 **d** 1 : 3

46 What is the distance between the two points (4, -7) and (-5, -7)?

- a** 1 unit **b** 3 units **c** 7 units **d** 9 units

47 The area of the opposite figure is square units.

- a** 34 **b** 38
c 52 **d** 17



48 The second term in the ratio $\frac{7}{12}$ is

- (a) 0 (b) 7 (c) 1 (d) 12

49 $1 - 75\% = \dots\dots\dots$

- (a) 74% (b) 0.25 (c) 25 (d) 2.5

50 The area of the rhombus of side length 8 cm and height 5 cm is cm^2

- (a) 40 (b) 20 (c) 80 (d) 400

51 To find the simplest form of the ratio 8 : 16, we divide the two terms by

- (a) 16 (b) 8 (c) 6 (d) 1

52 1 day: 24 hours is considered a/an

- (a) unit ratio (b) equivalent ratio (c) conversion factor (d) otherwise

53 Which pair shows equivalent ratios ?

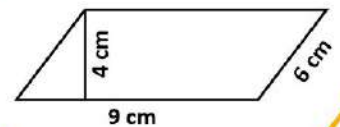
- (a) $\frac{3}{4}$, 16 to 20 (b) $\frac{25}{50}$, 1 : 2 (c) $\frac{4}{8}$, $\frac{3}{9}$ (d) 1 : 3, 3 : 6

54 If the x-coordinate of a point is zero, then this point lies

- (a) in 1st quadrant (b) in 3rd quadrant (c) on x-axis (d) on y-axis

55 The area of the opposite parallelogram = cm^2

- (a) 24 (b) 54 (c) 36 (d) 18



56 Farida ate 45 % of a pizza, so she ate half the pizza.

- (a) exactly (b) more than (c) less than (d) otherwise

57 40% of a number equals.....

- (a) its fourth (b) its four tenths
(c) its four fourths (d) its four sevenths



58 The ratio of the area of one face of a cube to its surface area is

- a** 1 : 8 **b** 1 : 4 **c** 1 : 6 **d** 2 : 3

59 $0.55 \div 0.011 = \dots \div 11$

- a** 55 **b** 550 **c** 5,500 **d** 5.5

60 Which of the following points can be a vertex of a right-angled triangle if the other vertices are (0, 3) and (5, 0)?

- a** (0, 3) **b** (0, 5) **c** (3, 5) **d** (0, 0)

61 If $3 : 5 = 12 : 4x$, then $x = \dots$

- a** 20 **b** 24 **c** 5 **d** 10

62 The image of the point (0, 7) by reflection on the y-axis is

- a** (0, -7) **b** (0, 0) **c** (7, 0) **d** itself

63 If $127.92 \div 4.1 = 31.2$, then $12.792 \div 4.1 = \dots$

- a** 312 **b** 3.12 **c** 31.2 **d** 0.312

64 are two equivalent ratios

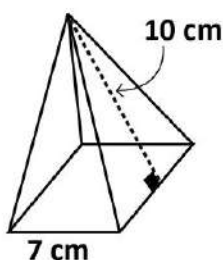
- a** $\frac{6}{7}, \frac{18}{14}$ **b** $\frac{2}{3}, \frac{8}{16}$ **c** $\frac{4}{5}, \frac{60}{75}$ **d** $\frac{1}{2}, \frac{2}{5}$

65 The ratio between the side of an equilateral triangle to its perimeter is :

- a** 1 : 4 **b** 4 : 1 **c** 3 : 1 **d** 1 : 3

66 The surface area of the opposite square pyramid is cm^2 .

- a** 70 **b** 140
c 189 **d** 343



67 Sandy reads 140 pages of stories weekly, then she reads pages daily

- (a) 20 (b) 7 (c) 14 (d) 70

68 $5.2 \times 0.3 = \dots\dots\dots$

- (a) 0.156 (b) 1.56 (c) 15.6 (d) 156

69 $49\% = \dots\dots\dots$

- (a) $\frac{4.9}{100}$ (b) 49 (c) 0.49 (d) 4900

70 20% of a number = % of half the same number

- (a) 10 (b) 20 (c) 30 (d) 40

71 If the point (x , 6) lies in the 1st quadrant, then the value of x is

- (a) -7 (b) -1 (c) -2 (d) 5

72 The image of the point (4 , -3) by reflection on x-axis is

- (a) (4 , -3) (b) (-4 , -3) (c) (4 , 3) (d) (-4 , 3)

73 is a unit of the volume measurement.

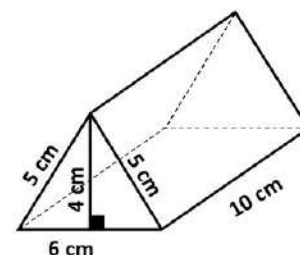
- (a) cm (b) cm^3 (c) m^2 (d) m

74 Murad spends 24 pounds in 6 days, then he will spend LE in 10 days.

- (a) 240 (b) 60 (c) 40 (d) 30

75 The surface area of the opposite triangular prism is cm^2 .

- (a) 184 (b) 124
(c) 172 (d) 134



76 The volume of a cuboid of base area 28 cm^2 and height 7.4 cm is cm^3 .

- (a) 270.2 (b) 207.2 (c) 202.7 (d) 207.7

77 $\div \frac{1}{2} = \frac{1}{3}$

- (a) $\frac{1}{6}$ (b) 6 (c) $\frac{3}{1}$ (d) $\frac{2}{3}$

78 gm = 60 kg

- (a) 0.06 (b) 6,000 (c) 600 (d) 60,000

79 $1 - 1\% = \text{..... } \%$

- (a) zero (b) 2 (c) 99 (d) 1

80 Which of the following values could be the y-coordinate of the point (5 ,) that is 7 units from (5 , 9)

- (a) -2 (b) 2 (c) 7 (d) -7

81 The ratio between two side lengths of rhombus is

- (a) 1 : 4 (b) 1 : 3 (c) 1 : 2 (d) 1 : 1

82 If $3 : 5 = 12 : 2x$, then $x = \text{.....}$

- (a) 20 (b) 24 (c) 12 (d) 10

83 If the perimeter of an equilateral triangle is 18 cm and its area is 15 cm^2 , then its height is cm.

- (a) 5 (b) 15 (c) 30 (d) 6



- 84) The total number of students in a class is 40 and the boys are 15, then the ratio between girls and boys is
- (a) 3 : 8 (b) 3 : 5 (c) 5 : 8 (d) 5 : 3
- 85) The point $(-8, 3)$ lies in
- (a) 1st quadrant (b) 2nd quadrant (c) 3rd quadrant (d) 4th quadrant
- 86) If $x : 15 = 3 : 5$, then $x + 4 =$
- (a) 8 (b) 9 (c) 5 (d) 13
- 87) 35% of 160 =
- (a) $\frac{56}{100}$ (b) 56 (c) 5.6 (d) 560
- 88) 45 L.E for 5kg of tomatos, then the cost of 20 kg of tomatos is L.E
- (a) 45 (b) 90 (c) 180 (d) 200
- 89) $\times \frac{3}{5} = \frac{3}{4}$
- (a) $\frac{4}{15}$ (b) $1\frac{1}{4}$ (c) $\frac{9}{20}$ (d) $2\frac{2}{9}$
- 90) The percentage of 4 squares of 400 squares is %.
- (a) 4 (b) 1 (c) 0.01 (d) 0.1
- 91) If the ratio between a and b is 1 : 3 and the sum of a and b is 20 ,then b =
- (a) 16 (b) 4 (c) 15 (d) 80
- 92) The perimeter of one face of a cube is 28 cm, then the surface area of cube is cm².
- (a) 294 (b) 49
(c) 4,704 (d) 1,176



93 If $\frac{x+3}{14} = \frac{1}{2}$, then $x =$

- (a) 14 (b) 7 (c) 4 (d) 3

94 5,200 dm = km

- (a) 52 (b) 5.2 (c) 0.52 (d) 0.052

95 How many $\frac{3}{5}$'s are in 9 apples?

- (a) $\frac{27}{5}$ (b) 15 (c) $\frac{1}{15}$ (d) $15\frac{2}{3}$

96 The distance between the points A (5, -5) and B (5, 4) is units.

- (a) 0 (b) 1 (c) 9 (d) 10

97 If 100% of a number is 80, what is 50% of this number?

- (a) 0.4 (b) 4 (c) 40 (d) 400

98 The reciprocal of $\frac{1}{8}$ is

- (a) -8 (b) 8 (c) $\frac{1}{8}$ (d) $-\frac{1}{8}$

99 $4.5 \div 0.09 =$ $\div 9$

- (a) 0.45 (b) 450 (c) 45 (d) 4.5

100 If the sum of edges of a cube is 48 cm, then the area of one face is cm^2 .

- (a) 16 (b) 4 (c) 64 (d) 2,304

101 A cuboid of volume 48 cm^3 , all of its dimensions are doubled, then the new volume of the cuboid is cm^3 .

- (a) 96 (b) 192
(c) 384 (d) 129



102 If a triangle has a base length of 20 cm and its corresponding height is 7.5 cm, then its area is cm².

- (a) 150 (b) 75 (c) 32.5 (d) 750

103 120 m per min = cm per sec

- (a) 12000 (b) 200 (c) 720 (d) 1200

104 The distance between -6 and 5 on the number line is units

- (a) 1 (b) -1 (c) 11 (d) 5

105 $77 : 49 = \text{.....} : \text{.....}$

- (a) 7 : 11 (b) 7 : 1 (c) 11 : 7 (d) 11 : 1

106 $\frac{5}{7} \div \text{.....} = 1$

- (a) $\frac{5}{7}$ (b) 1 (c) $\frac{1}{5}$ (d) $\frac{7}{5}$

107 If the area of a triangle is 35 cm² and its base length is 10 cm, then the length of its corresponding height is cm.

- (a) 70 (b) 35 (c) 7 (d) 10

108 The ratio between two number is 2:5. If the first number becomes 8, then the second number will be

- (a) 8 (b) 10 (c) 15 (d) 20

109 The surface area of a cuboid with dimensions of 3 cm , 5 cm, and 8 cm is cm².

- (a) 2×16 (b) $3 \times 5 \times 8$ (c) $2 \times (3 \times 5 \times 8)$ (d) $2 \times (15 + 40 + 24)$

110 If the image of a point by reflection on the y-axis is (- 3 , 4), then the point is

- (a) (4 , -3) (b) (3 , 4)
(c) (-3 , -4) (d) (-4 , 3)



111 Which of following expressions represents the surface area of a cube with side length S ?

- (a) S^3 (b) $6 S^2$ (c) $6 S^3$ (d) $4 S^2$

112 180 minutes = hours

- (a) 2 (b) 3 (c) 4 (d) 5

113 If the area of rhombus is 40 cm^2 and its side length is 8 cm , then its height = cm

- (a) 320 (b) 5 (c) 8 (d) 10

114 If the point $(x, -4)$ lies in the 3rd quadrant, then the value of x is

- (a) 7 (b) -1 (c) 2 (d) 5

115 The reciprocal of $3\frac{3}{4}$ is

- (a) $\frac{15}{4}$ (b) $3\frac{4}{3}$ (c) $\frac{4}{15}$ (d) $3\frac{4}{15}$

116 The estimated volume of a cuboid with dimensions of 2.5 cm , 3.75 cm, and 2.2 cm is cm^3 .

- (a) 12 (b) 18 (c) 24 (d) 36

117 If $8 : x = 0.5$, then $x =$

- (a) 4 (b) 8 (c) 16 (d) 40

118 If the ratio between two numbers is 3 : 5 and the smaller number is 12, then the greater number is

- (a) 15 (b) 20 (c) 36 (d) 12

119 If the point A $(-3, 5)$ moved 1 unit to the right then 2 units downward, then A will be

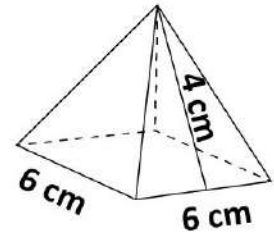
- (a) $(-4, 7)$ (b) $(-2, 3)$
(c) $(-2, -3)$ (d) $(2, -3)$



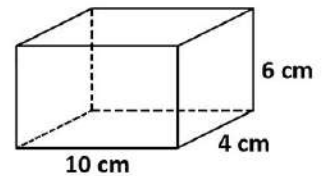
Q2: Answer The Following

- 1 Fatma wants to divide a piece of fabric of length $\frac{3}{4}$ meter into smaller pieces each of length $\frac{3}{8}$ meter. How many pieces are there?

- 2 Find the surface area of the following square pyramid



- 3 Find the volume of the opposite solid:



- 4 If Murad has 40 L.E. and Ahmed Nassr has 32 L.E. Find the ratio between what Murad has and the total sum of money in simplest form.

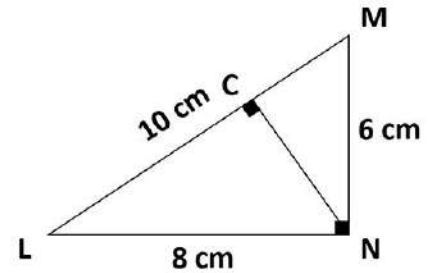
- 5 Point C (0 , 3) lies on-axis.

- 6 Select 10% and then use it as a reference ratio to find the following percentages: 60% of 150 L.E =

- 7 If $\frac{7}{k}$ equivalent to $\frac{1}{4}$, then k =



- 8 In the opposite figure, find the area of the triangle and then find the length of NC.



- 9 4 friends share $\frac{4}{5}$ of a pizza. Find the share of each of them using bar models.

- 10 A cuboid has a base area of 100.5 m^2 and a height of 4 m. Calculate its volume.

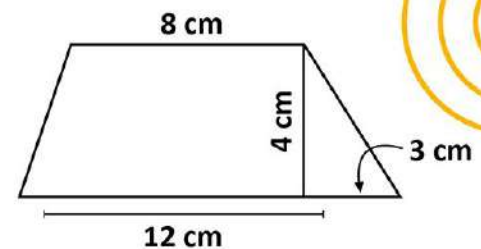
- 11 Mona bought vegetables with a mass of 6.5 kilograms.
Find the mass of the vegetables in grams.

- 12 Find the value of y in each of the following.

a $\frac{4}{5} \div y = \frac{1}{4}$

b $\frac{4}{5} \times y = 1$

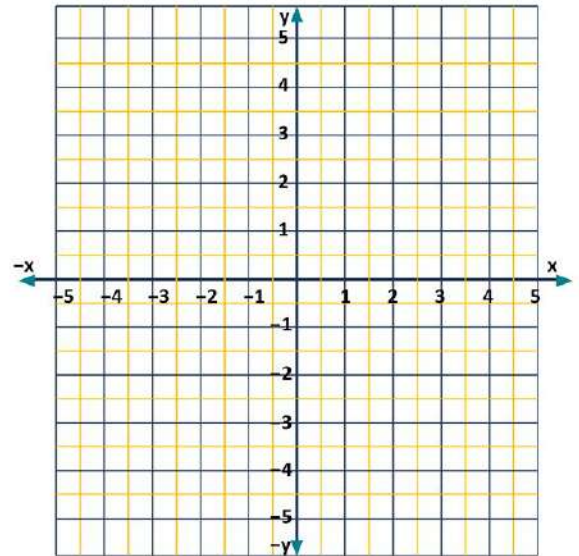
- 13 Find the area of each of the following trapezium:



- 14 The number which has no reciprocal is



- 15** Using the coordinate plane, draw a square ABCD where one of its vertices is the point A (2,2) and its side length is 3 units. Then, write the coordinates of the other three vertices.

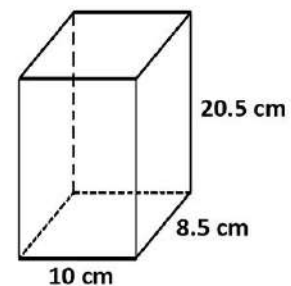


- 16** If the ratio of the number of oranges to the number of apples is 2 to 5, how many apples are there if the number of oranges is 14?

- 17** Hajar wants to prepare a candy recipe. The recipe requires $\frac{2}{3}$ cup of milk. Hajar has $\frac{4}{9}$ cup of milk. Does she have enough milk to make the whole recipe?

- 18** Answer the following:

- a) Estimating volume:
b) Actual volume:



- 19** Haneen uses 20 spoons of butter for every 5 loaves of bread she bakes. Calculate the number of spoons of butter she needs to make 5 loaves of the same type of bread.

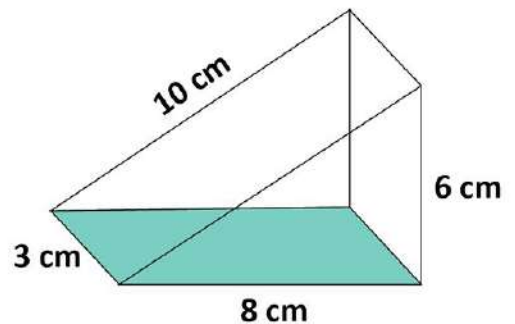


- 20** If the original price of a meal is 460 LE, if there's a tax of 15%,
Calculate the price of the meal after adding tax

- 21** A pyramid of metal. The square base has a side length of about 100 cm.
The height of each triangular face is about 80 cm.
What is the surface area of the pyramid?

- 22** A cuboid has dimensions: 1 m, 2 m and 2.5 m. Find its volume if its length is doubled.

- 23** Find the surface area of the opposite figure.



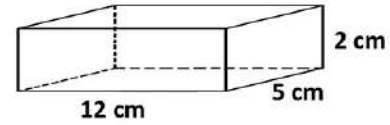
- 24** A triangle has a base length of 10 cm and an area of 35 cm².
Find the length of the corresponding height to this base.

- 25** Find the result:

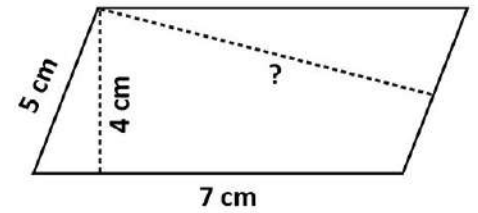
- a** $\frac{3}{15} \div \frac{6}{5} = \dots\dots\dots$
b $2.31 \times 0.23 = \dots\dots\dots$



26 Find the volume of the opposite solid:



27 Find the length of the missing side:



28 Shaimaa has 4 liters of juice and wants to divide it into bottles with a capacity of $\frac{2}{3}$ liters. Find the number of bottles needed, using tape diagrams.

29 A triangle has an area of 32 cm^2 and a height of 8 cm. Find the length of its base

30 You got 7 marks out of 10 marks in the Math subject. What is the percentage that the marks you got represent?

31 Assuming you stored 20 boxes of goods, which is 80% of the boxes, What is the total number of boxes?

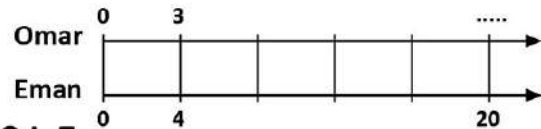
32 Convert the speed 3.6 km per hour into meters per second.



33 How much is $\frac{1}{4}$ the number 20?

34 A triangle has a base length 4.2 cm and a corresponding height is 2.6 cm.
Find its area.

35 From the opposite double number line,
if the ratio between what Omar saved
to what Eman saved was 3 : 4 if Eman saved 20 L.E.
then Omar saved L.E

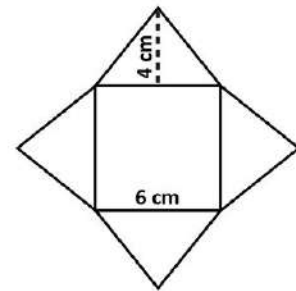


36 Find the surface area of the opposite solid:

Base area =

Area of the face =

Total surface area =



37 Convert the speed of 500 cm/s to meters per second using the conversion factor?

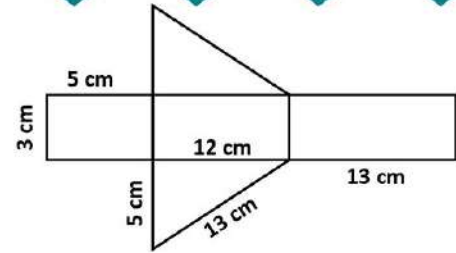
38 If the volume of a cuboid is 720 cm^3 and its height is 10 cm, find its base area.

39 The number of students in a school is 540, if the number of boys in school
is 300, Find: The ratio between the number of boys and the number of girls.

40 A car travels a distance of 120 kilometres in two hours, express this
using the word average?



- 41 Find the surface area of the opposite triangular prism



- 42 If the lunch bill for you and your friend is EGP 300 and the sales tax rate is 5% and a 10% service charge is added. Calculate the total amount of lunch?

- 43 Suppose you have $\frac{8}{10}$ kg of clay, and you want to cut it into equal pieces of $\frac{1}{5}$ kg each, how many pieces can you make?

- 44 Fatima obtained 50 marks out of 80 marks in a mathematics test. Calculate the percentage of the mark Fatima obtained.



Q1: Choose the correct answer

1 The distance between the point (0, -4) and the origin point is units

a 0

b -4

c 4

d 8

2 The number of heights of any triangle is

a 3

b 2

c 1

d 0

3 30 L.E for 5 kg, then the cost of 30 kg is L.E

a 5

b 30

c 90

d 180

4 $\div 2.15 = 1,200 \div 215$

a 120

b 12

c 1.2

d 1200

5 2.3 km = meters

a 2300

b 230

c 23

d 2.3

6 $\frac{3}{8} \times \dots = 1$

a $\frac{3}{8}$

b 1

c $\frac{8}{5}$

d $2\frac{2}{3}$

7 Mazen studies 24 pages in 6 hours, then the unit rate of his study is pages/hour.

a 5

b 4

c 8

d 6

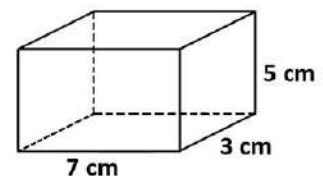
8 The surface area of the following cuboid is cm^2 .

a 105

b 70

c 142

d 35



9 Point C (-5, -3) lies on the quadrant.

a first

b third

c second

d fourth



10 45 % of a litre = mL

☒ a 450

☐ b 4500

☐ c 45

☐ d 0.45

11 If $a : b$ and $c : d$ are equivalent ratios then

☐ a $a \times b = c \times d$

☐ b $a \times c = b \times d$

☒ c $a \times d = b \times c$

☐ d $a + d = b + c$

12 If $25 \times 33 = 825$, then $0.25 \times 3.3 =$

☐ a 82.5

☐ b 8.25

☐ c 0.852

☒ d 0.825

13 A cubic meter is a unit of

☐ a capacity

☒ b volume

☐ c mass

☐ d length

14 If the y-coordinate of a point is zero, then this point lies

☐ a in 1st quadrant

☐ b in 3rd quadrant

☒ c on x-axis

☐ d on y-axis

15 The reciprocal of the number is $4\frac{2}{5}$

☐ a $\frac{22}{5}$

☐ b $4\frac{5}{2}$

☒ c $\frac{5}{22}$

☐ d $\frac{2}{11}$

16 $5 \times \dots = 1$

☐ a $\frac{25}{5}$

☐ b 1

☒ c $\frac{1}{5}$

☐ d 0

17 The number of heights of a right triangle is

☐ a 0

☐ b 1

☐ c 2

☒ d 3

18 $4.8 \text{ L} \times \frac{\dots}{\dots} = 4800 \text{ mL}$

☐ a $\frac{100 \text{ mL}}{1 \text{ L}}$

☒ b $\frac{1,000 \text{ mL}}{1 \text{ L}}$

☐ c $\frac{1,000 \text{ L}}{1 \text{ mL}}$

☐ d $\frac{1 \text{ L}}{1,000 \text{ mL}}$



19 If $3 : x - 1 = 4 : 8$, then $x = \dots\dots\dots$

a 5

b 7

c 8

d 9

20 5% of LE = 120 LE

a 240

b 2400

c 1200

d 120

21 225% =

a $1 \frac{25}{100}$

b $2 \frac{25}{200}$

c $2 \frac{1}{4}$

d 0.225

22 The surface area of the square pyramid in which the perimeter of its base is 32 cm and the height of each triangular face is 6 cm equals cm^2 .

a 192

b 96

c 24

d 160

23 The greater the absolute value of the x-coordinate, the point is to the y-axis.

a farther

b closer

c equal

d otherwise

24 A water tap is leaking 240 litres of water in one hour, then the rate of leaking = L/min.

a 240

b 4

c 40

d 6

25 The point lies on the x-axis.

a (0, 3)

b (-1, -4)

c (-5, 0)

d (0, -5)

26 A cube with a surface area of 216 cm^2 , Then the edge length is cm.

a 6

b 36

c 96

d 60

27 Merolla spends 120 LE in 4 days, then the rate of what she spends is LE/day.

a 300

b 30

c 25

d 250



- 28** A parallelogram with area 48 cm^2 and base length 6 cm , then it's corresponding height is cm
 (a) 9 (b) 8 (c) 7 (d) 8.5
- 29** If the base area of a cuboid is 180 cm^2 , and its height is 9 cm. Then its volume is cm^3 .
 (a) 20 (b) 180 (c) 1,620 (d) 810
- 30** 5% of = 5
 (a) 25 (b) 50 (c) 100 (d) 125
- 31** The point lies on the y-axis.
 (a) (0 , 3) (b) (-1, -4) (c) (-5 , 0) (d) (5 , -5)
- 32** A cube with surface area of 150 cm^2 , Then the edge length is cm.
 (a) 25 (b) 900 (c) 5 (d) 50
- 33** If $4 : x = 12 : 18$, then $x =$
 (a) 6 (b) 9 (c) 15 (d) 18
- 34** The surface area of a cuboid whose dimensions are 6 cm, 4 cm, and 1 cm =
 (a) 24 cm^2 . (b) 68 cm^2 . (c) 30 cm^2 . (d) 10 cm^2 .
- 35** If the percentage of success in a school is 76 %, so the percentage of failures is %
 (a) 24 (b) 44 (c) 67 (d) 90
- 36** A box without lid in form of cube, its side length 2 m, then its surface area is m^2 .
 (a) 4 (b) 24 (c) 20 (d) 12
- 37** Which of the following is a unit rate ?
 (a) 40 LE per 2 kg (b) 450 km per 3 hours
 (c) 4 spoons of sugar per 2 cups (d) 2 liters per bottle



38 If the three dimensions of a cuboid are doubled, then the ratio between the new volume to the original volume of the cuboid is

- ☐ a 1 : 2 ☐ b 1 : 4 ☐ c 1 : 8 ☒ d 8 : 1

39 360 sec = hour

- ☐ a 60 ☐ b 10 ☐ c 3600 ☒ d 0.1

40 If the original price of a dress is 1,700 LE, then its sale price after apply a discount 20% is

- ☒ a 1,360 ☐ b 340 ☐ c 170 ☐ d 17

41 Any number multiplied by its reciprocal equals

- ☒ a 1 ☐ b double number ☐ c same number ☐ d 0

42 $\frac{3}{6} = \dots\dots\dots \%$

- ☐ a 30 ☐ b 25 ☒ c 50 ☐ d 60

43 The area of the triangle =

- ☐ a $\frac{1}{2} bb$ ☒ b $\frac{b}{2} \times h$ ☐ c $\frac{1}{2} hh$ ☐ d $b \times h$

44 $\frac{6}{7}$ is equivalent to

- ☐ a $\frac{7}{6}$ ☐ b $\frac{18}{14}$ ☒ c $\frac{42}{49}$ ☐ d $\frac{35}{30}$

45 The ratio between the perimeter of a square to its side length is

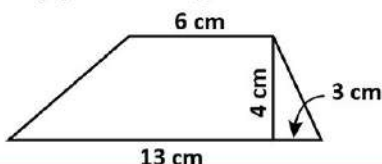
- ☐ a 1 : 4 ☒ b 4 : 1 ☐ c 3 : 1 ☐ d 1 : 3

46 What is the distance between the two points (4, -7) and (-5, -7)?

- ☐ a 1 unit ☐ b 3 units ☐ c 7 units ☒ d 9 units

47 The area of the opposite figure is square units.

- ☐ a 34 ☒ b 38 ☐ c 52 ☐ d 17



48 The second term in the ratio $\frac{7}{12}$ is

- (a) 0 (b) 7 (c) 1 (d) 12

49 $1 - 75\% = \dots\dots\dots$

- (a) 74% (b) 0.25 (c) 25 (d) 2.5

50 The area of the rhombus of side length 8 cm and height 5 cm is cm^2

- (a) 40 (b) 20 (c) 80 (d) 400

51 To find the simplest form of the ratio 8 : 16, we divide the two terms by

- (a) 16 (b) 8 (c) 6 (d) 1

52 1 day: 24 hours is considered a/an

- (a) unit ratio (b) equivalent ratio (c) conversion factor (d) otherwise

53 Which pair shows equivalent ratios ?

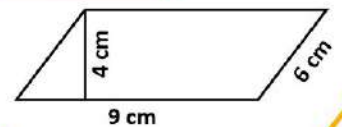
- (a) $\frac{3}{4}$, 16 to 20 (b) $\frac{25}{50}$, 1 : 2 (c) $\frac{4}{8}$, $\frac{3}{9}$ (d) 1 : 3, 3 : 6

54 If the x-coordinate of a point is zero, then this point lies

- (a) in 1st quadrant (b) in 3rd quadrant (c) on x-axis (d) on y-axis

55 The area of the opposite parallelogram = cm^2

- (a) 24 (b) 54 (c) 36 (d) 18



56 Farida ate 45 % of a pizza, so she ate half the pizza.

- (a) exactly (b) more than (c) less than (d) otherwise

57 40% of a number equals.....

- (a) its fourth (b) its four tenths (c) its four fourths (d) its four sevenths



58 The ratio of the area of one face of a cube to its surface area is

☐ a 1 : 8

☐ b 1 : 4

☒ c 1 : 6

☐ d 2 : 3

59 $0.55 \div 0.011 = \dots \div 11$

☐ a 55

☒ b 550

☐ c 5,500

☐ d 5.5

60 Which of the following points can be a vertex of a right-angled triangle if the other vertices are (0, 3) and (5, 0)?

☐ a (0, 3)

☐ b (0, 5)

☐ c (3, 5)

☒ d (0, 0)

61 If $3 : 5 = 12 : 4x$, then $x = \dots$

☐ a 20

☐ b 24

☒ c 5

☐ d 10

62 The image of the point (0, 7) by reflection on the y-axis is

☐ a (0, -7)

☐ b (0, 0)

☐ c (7, 0)

☒ d itself

63 If $127.92 \div 4.1 = 31.2$, then $12.792 \div 4.1 = \dots$

☐ a 312

☒ b 3.12

☐ c 31.2

☐ d 0.312

64 are two equivalent ratios

☐ a $\frac{6}{7}, \frac{18}{14}$

☐ b $\frac{2}{3}, \frac{8}{16}$

☒ c $\frac{4}{5}, \frac{60}{75}$

☐ d $\frac{1}{2}, \frac{2}{5}$

65 The ratio between the side of an equilateral triangle to its perimeter is :

☐ a 1 : 4

☐ b 4 : 1

☐ c 3 : 1

☒ d 1 : 3

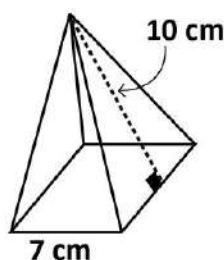
66 The surface area of the opposite square pyramid is cm^2 .

☐ a 70

☒ c 189

☐ b 140

☐ d 343



67 Sandy reads 140 pages of stories weekly, then she reads pages daily

a 20

b 7

c 14

d 70

68 $5.2 \times 0.3 = \dots\dots\dots$

a 0.156

b 1.56

c 15.6

d 156

69 $49\% = \dots\dots\dots$

a $\frac{4.9}{100}$

b 49

c 0.49

d 4900

70 20% of a number = % of half the same number

a 10

b 20

c 30

d 40

71 If the point (x , 6) lies in the 1st quadrant, then the value of x is

a -7

b -1

c -2

d 5

72 The image of the point (4 , -3) by reflection on x-axis is

a (4 , -3)

b (-4 , -3)

c (4 , 3)

d (-4 , 3)

73 is a unit of the volume measurement.

a cm

b cm^3

c m^2

d m

74 Murad spends 24 pounds in 6 days, then he will spend LE in 10 days.

a 240

b 60

c 40

d 30

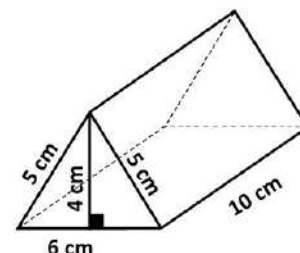
75 The surface area of the opposite triangular prism is cm^2 .

a 184

b 124

c 172

d 134



76 The volume of a cuboid of base area 28 cm^2 and height 7.4 cm is cm^3 .

(a) 270.2

(b) 207.2

(c) 202.7

(d) 207.7

77 $\div \frac{1}{2} = \frac{1}{3}$

(a) $\frac{1}{6}$

(b) 6

(c) $\frac{3}{1}$

(d) $\frac{2}{3}$

78 gm = 60 kg

(a) 0.06

(b) 6,000

(c) 600

(d) 60,000

79 $1 - 1\% = \text{..... } \%$

(a) zero

(b) 2

(c) 99

(d) 1

80 Which of the following values could be the y-coordinate of the point (5 ,) that is 7 units from (5 , 9)

(a) -2

(b) 2

(c) 7

(d) -7

81 The ratio between two side lengths of rhombus is

(a) 1 : 4

(b) 1 : 3

(c) 1 : 2

(d) 1 : 1

82 If $3 : 5 = 12 : 2x$, then $x = \text{.....}$

(a) 20

(b) 24

(c) 12

(d) 10

83 If the perimeter of an equilateral triangle is 18 cm and its area is 15 cm^2 , then its height is cm.

(a) 5

(b) 15

(c) 30

(d) 6



84 The total number of students in a class is 40 and the boys are 15, then the ratio between girls and boys is

☐ a 3 : 8

☒ b 3 : 5

☐ c 5 : 8

☐ d 5 : 3

85 The point $(-8, 3)$ lies in

☐ a 1st quadrant

☒ b 2nd quadrant

☐ c 3rd quadrant

☐ d 4th quadrant

86 If $x : 15 = 3 : 5$, then $x + 4 =$

☐ a 8

☐ b 9

☐ c 5

☒ d 13

87 35% of 160 =

☐ a $\frac{56}{100}$

☒ b 56

☐ c 5.6

☐ d 560

88 45 L.E for 5kg of tomatos, then the cost of 20 kg of tomatos is L.E

☐ a 45

☐ b 90

☒ c 180

☐ d 200

89 $\times \frac{3}{5} = \frac{3}{4}$

☐ a $\frac{4}{15}$

☒ b $1\frac{1}{4}$

☐ c $\frac{9}{20}$

☐ d $2\frac{2}{9}$

90 The percentage of 4 squares of 400 squares is %.

☐ a 4

☒ b 1

☐ c 0.01

☐ d 0.1

91 If the ratio between a and b is 1 : 3 and the sum of a and b is 20 ,then b =

☐ a 16

☐ b 4

☒ c 15

☐ d 80

92 The perimeter of one face of a cube is 28 cm, then the surface area of cube is cm^2 .

☒ a 294

☐ b 49

☐ c 4,704

☐ d 1,176



93 If $\frac{x+3}{14} = \frac{1}{2}$, then $x =$

☐ a 14

☐ b 7

☒ c 4

☐ d 3

94 5,200 dm = km

☐ a 52

☐ b 5.2

☒ c 0.52

☐ d 0.052

95 How many $\frac{3}{5}$'s are in 9 apples?

☐ a $\frac{27}{5}$

☒ b 15

☐ c $\frac{1}{15}$

☐ d $15\frac{2}{3}$

96 The distance between the points A (5, -5) and B (5, 4) is units.

☐ a 0

☐ b 1

☒ c 9

☐ d 10

97 If 100% of a number is 80, what is 50% of this number?

☐ a 0.4

☐ b 4

☒ c 40

☐ d 400

98 The reciprocal of $\frac{1}{8}$ is

☐ a -8

☒ b 8

☐ c $\frac{1}{8}$

☐ d $-\frac{1}{8}$

99 $4.5 \div 0.09 =$ $\div 9$

☐ a 0.45

☒ b 450

☐ c 45

☐ d 4.5

100 If the sum of edges of a cube is 48 cm, then the area of one face is cm^2 .

☒ a 16

☐ b 4

☐ c 64

☐ d 2,304

101 A cuboid of volume 48 cm^3 , all of its dimensions are doubled, then the new volume of the cuboid is cm^3 .

☐ a 96

☐ b 192

☒ c 384

☐ d 129



102 If a triangle has a base length of 20 cm and its corresponding height is 7.5 cm, then its area is cm².

☐ a 150

☒ b 75

☐ c 32.5

☐ d 750

103 120 m per min = cm per sec

☐ a 12000

☒ b 200

☐ c 720

☐ d 1200

104 The distance between -6 and 5 on the number line is units

☐ a 1

☐ b -1

☒ c 11

☐ d 5

105 77 : 49 = :

☐ a 7 : 11

☐ b 7 : 1

☒ c 11 : 7

☐ d 11 : 1

106 $\frac{5}{7} \div \dots = 1$

☒ a $\frac{5}{7}$

☐ b 1

☐ c $\frac{1}{5}$

☐ d $\frac{7}{5}$

107 If the area of a triangle is 35 cm² and its base length is 10 cm, then the length of its corresponding height is cm.

☐ a 70

☐ b 35

☒ c 7

☐ d 10

108 The ratio between two number is 2:5. If the first number becomes 8, then the second number will be

☐ a 8

☐ b 10

☐ c 15

☒ d 20

109 The surface area of a cuboid with dimensions of 3 cm , 5 cm, and 8 cm is cm².

☐ a 2×16

☐ b $3 \times 5 \times 8$

☐ c $2 \times (3 \times 5 \times 8)$

☒ d $2 \times (15 + 40 + 24)$

110 If the image of a point by reflection on the y-axis is (- 3 , 4), then the point is

☐ a (4 , -3)

☒ b (3 , 4)

☐ c (-3 , -4)

☐ d (-4 , 3)



111 Which of following expressions represents the surface area of a cube with side length S ?

☐ a S^3

☒ b $6 S^2$

☐ c $6 S^3$

☐ d $4 S^2$

112 180 minutes = hours

☐ a 2

☒ b 3

☐ c 4

☐ d 5

113 If the area of rhombus is 40 cm^2 and its side length is 8 cm , then its height = cm

☐ a 320

☒ b 5

☐ c 8

☐ d 10

114 If the point $(x, -4)$ lies in the 3rd quadrant, then the value of x is

☐ a 7

☒ b -1

☐ c 2

☐ d 5

115 The reciprocal of $3\frac{3}{4}$ is

☐ a $\frac{15}{4}$

☐ b $3\frac{4}{3}$

☒ c $\frac{4}{15}$

☐ d $3\frac{4}{15}$

116 The estimated volume of a cuboid with dimensions of 2.5 cm , 3.75 cm, and 2.2 cm is cm^3 .

☐ a 12

☐ b 18

☒ c 24

☐ d 36

117 If $8 : x = 0.5$, then $x =$

☐ a 4

☐ b 8

☒ c 16

☐ d 40

118 If the ratio between two numbers is 3 : 5 and the smaller number is 12, then the greater number is

☐ a 15

☒ b 20

☐ c 36

☐ d 12

119 If the point A $(-3, 5)$ moved 1 unit to the right then 2 units downward, then A will be

☐ a $(-4, 7)$

☒ b $(-2, 3)$

☐ c $(-2, -3)$

☐ d $(2, -3)$



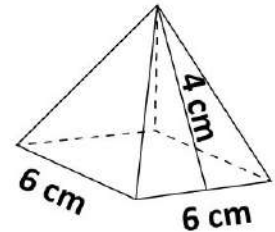
Q2: Answer The Following

- 1) Fatma wants to divide a piece of fabric of length $\frac{3}{4}$ meter into smaller pieces each of length $\frac{3}{8}$ meter. How many pieces are there?

2 pieces.

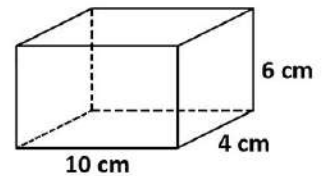
- 2) Find the surface area of the following square pyramid

84 cm².



- 3) Find the volume of the opposite solid:

240 cm³.



- 4) If Murad has 40 L.E. and Ahmed Nassr has 32 L.E. Find the ratio between what Murad has and the total sum of money in simplest form.

5 : 9

- 5) Point C (0 , 3) lies on^y.....-axis.

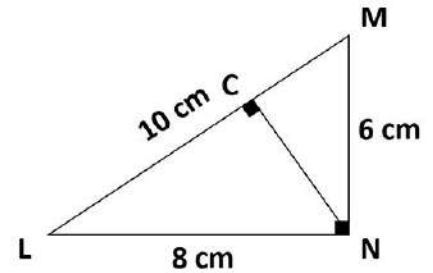
- 6) Select 10% and then use it as a reference ratio to find the following percentages: 60% of 150 L.E =^{90 L.E.}.....

- 7) If $\frac{7}{k}$ equivalent to $\frac{1}{4}$, then k =²⁸.....



- 8 In the opposite figure, find the area of the triangle and then find the length of NC.

Area = 24 cm², NC = 4.8 cm.



- 9 4 friends share $\frac{4}{5}$ of a pizza. Find the share of each of them using bar models.

$$\frac{1}{5}$$

- 10 A cuboid has a base area of 100.5 m² and a height of 4 m. Calculate its volume.

402 m³.

- 11 Mona bought vegetables with a mass of 6.5 kilograms. Find the mass of the vegetables in grams.

6,500 grams.

- 12 Find the value of y in each of the following.

a $\frac{4}{5} \div y = \frac{1}{4}$

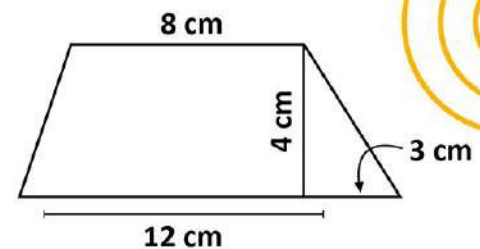
$$\frac{16}{5}$$

b $\frac{4}{5} \times y = 1$

$$\frac{5}{4}$$

- 13 Find the area of each of the following trapezium:

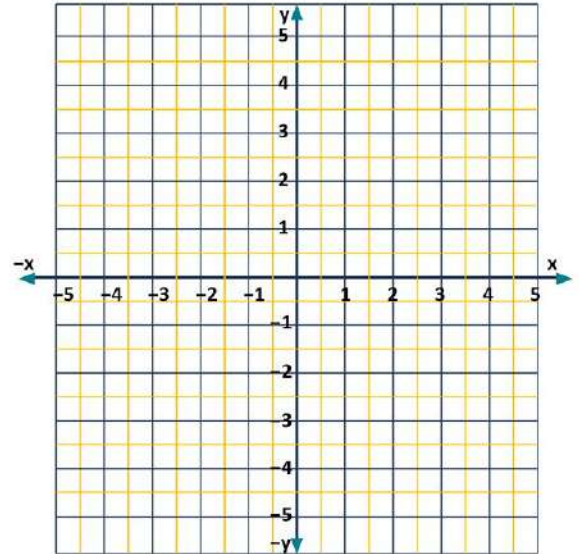
40 cm².



- 14 The number which has no reciprocal is 0



- 15 Using the coordinate plane, draw a square ABCD where one of its vertices is the point A (2,2) and its side length is 3 units. Then, write the coordinates of the other three vertices.



B(5,2) , C(5,5) , D(2,5)

Answers may vary

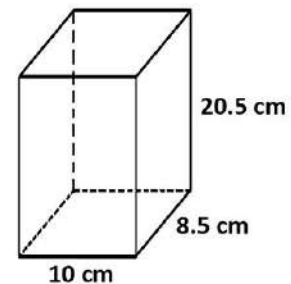
- 16 If the ratio of the number of oranges to the number of apples is 2 to 5, how many apples are there if the number of oranges is 14?

35 apples.

- 17 Hajar wants to prepare a candy recipe. The recipe requires $\frac{2}{3}$ cup of milk. Hajar has $\frac{4}{9}$ cup of milk. Does she have enough milk to make the whole recipe?
No, she does not have enough milk.

- 18 Answer the following:

- a Estimating volume: 1,600 cm³.
b Actual volume: 1742.5 cm³.



- 19 Haneen uses 20 spoons of butter for every 5 loaves of bread she bakes. Calculate the number of spoons of butter she needs to make 36 loaves of the same type of bread.

Haneen needs 140 spoons of butter.



- 20 If the original price of a meal is 460 LE, if there's a tax of 15%,
Calculate the price of the meal after adding tax

529 LE

- 21 A pyramid of metal. The square base has a side length of about 100 cm.
The height of each triangular face is about 80 cm.
What is the surface area of the pyramid?

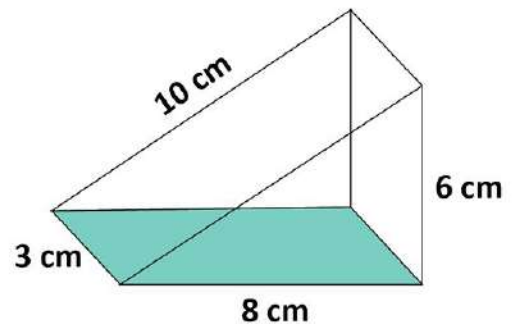
26,000 cm²

- 22 A cuboid has dimensions: 1 m, 2 m and 2.5 m. Find its volume if its length is doubled.

10 m³

- 23 Find the surface area of the opposite figure.

120 cm²



- 24 A triangle has a base length of 10 cm and an area of 35 cm².
Find the length of the corresponding height to this base.

7 cm

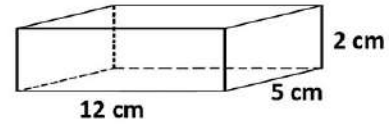
- 25 Find the result:

a $\frac{3}{15} \div \frac{6}{5} = \dots \frac{1}{6} \dots$

b $2.31 \times 0.23 = \dots 0.5313 \dots$

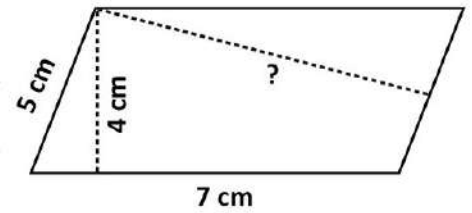


- 26 Find the volume of the opposite solid:



120 cm³

- 27 Find the length of the missing side:



5.6 cm

- 28 Shaimaa has 4 liters of juice and wants to divide it into bottles with a capacity of $\frac{2}{3}$ liters. Find the number of bottles needed, using tape diagrams.

6 bottles

- 29 A triangle has an area of 32 cm² and a height of 8 cm. Find the length of its base

8 cm

- 30 You got 7 marks out of 10 marks in the Math subject. What is the percentage that the marks you got represent?

70%

- 31 Assuming you stored 20 boxes of goods, which is 80% of the boxes, What is the total number of boxes?

25 boxes

- 32 Convert the speed 3.6 km per hour into meters per second.

1 m/s



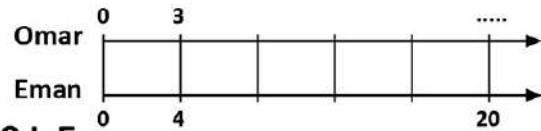
33 How much is $\frac{1}{4}$ the number 20?

5

34 A triangle has a base length 4.2 cm and a corresponding height is 2.6 cm.
Find its area.

5.46 cm²

35 From the opposite double number line,
if the ratio between what Omar saved
to what Eman saved was 3 : 4 if Eman saved 20 L.E.
then Omar saved15..... L.E

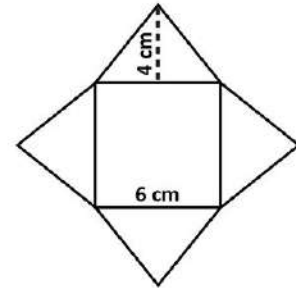


36 Find the surface area of the opposite solid:

Base area =36.....

Area of the face =12.....

Total surface area =84.....



37 Convert the speed of 500 cm/s to meters per second using the conversion factor?

5 m/s

38 If the volume of a cuboid is 720 cm³ and its height is 10 cm, find its base area.

72 cm²

39 The number of students in a school is 540, if the number of boys in school
is 300, Find: The ratio between the number of boys and the number of girls.

5 : 4

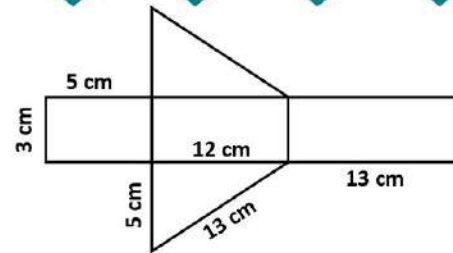
40 A car travels a distance of 120 kilometres in two hours, express this
using the word average?

60 km/h



- 41 Find the surface area of the opposite triangular prism

150 cm²



- 42 If the lunch bill for you and your friend is EGP 300 and the sales tax rate is 5% and a 10% service charge is added. Calculate the total amount of lunch?

345 EGP

- 43 Suppose you have $\frac{8}{10}$ kg of clay, and you want to cut it into equal pieces of $\frac{1}{5}$ kg each, how many pieces can you make?

4 pieces

- 44 Fatima obtained 50 marks out of 80 marks in a mathematics test. Calculate the percentage of the mark Fatima obtained.

62.5%



كيفية طباعة صفحات معينة من ملف معين مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9

